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REPORT ON CONDITION
OF
WOMAN AND CHILD WAGE-EARNERS IN THE UNITED STATES

IN 19 VOLUMES

VOLUME III: GLASS INDUSTRY

Prepared under the direction of
CHAS. P. NEILL
Commissioner of Labor

WASHINGTON
GOVERNMENT PRINTING OFFICE
1911

In the Senate of the United States,
June 15, 1910.

Resolved, That the complete report on the condition of woman and child wage-earners in the United States, transmitted and to be transmitted by the Secretary of Commerce and Labor in response to the act approved January twenty-ninth, nineteen hundred and seven, entitled "An act to authorize the Secretary of Commerce and Labor to report upon the industrial, social, moral, educational, and physical condition of woman and child workers in the United States," be printed as a public document.

Charles G. Bennett,
Secretary.

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LETTERS OF TRANSMITTAL.

Department of Commerce and Labor,
Office of the Secretary,
Washington, September 21, 1910.

Sir: In partial compliance with the Senate resolution of May 25, 1910, I beg to transmit herewith a report showing the results of the investigation into the condition of woman and child wage-earners in the glass industry in the United States.

This report has just been completed, and is the third section available for transmission of the larger report on the investigation carried on in accordance with the act of Congress approved January 29, 1907, which provided "That the Secretary of Commerce and Labor be, and he is hereby, authorized and directed to investigate and report on the industrial, social, moral, educational, and physical condition of woman and child workers in the United States wherever employed, with special reference to their age, hours of labor, term of employment, health, illiteracy, sanitary and other conditions surrounding their occupation, and the means employed for the protection of their health, persons, and morals."

The remaining parts of the general report are being completed as rapidly as possible and will each be transmitted at the earliest practicable moment.

Respectfully,

Benj. S. Cable,
Acting Secretary.

Hon. James S. Sherman,
President of the Senate, Washington. D. C.

Department of Commerce and Labor,
Bureau of Labor,
Washington, September 21, 1910.

Sir: I beg to transmit herewith a report on the employment of woman and child wage-earners in the glass industry in the United States. This is the third volume of the report of the general investigation into the condition of woman and child wage-earners in the United States, carried on in compliance with the act of Congress approved January 29, 1907.

The general conduct of the field work of the investigation of the glass industry has been under the direction of Special Agent Ethelbert Stewart. In the preparation of his report he has been principally assisted by Special Agents Hugh S. Hanna and Basil M. Manly. The tabular work has been carried on by Mr. John M. Foster. The general preparation of the report has, however, been carried on under the direction and immediate supervision of Mr. Chas. H. Verrill.

I am, very respectfully,

G. W. W. HANGER,
Acting Commissioner.

The SECRETARY OF COMMERCE AND LABOR,
Washington, D. C.

INTRODUCTION.

INTRODUCTION.

EXTENT OF THE GLASS INDUSTRY AND SCOPE OF THE INVESTIGATION.

Glass making is one of the most ancient of manufacturing industries. For many generations it has been a large employer of child labor, and in more recent years it has become an important employer of woman labor. Essentially spectacular in its processes, it has everywhere attracted the attention of those interested in the problems of child labor; and it has thus played a large part in molding that public sentiment which is everywhere being expressed in laws. Obviously in an investigation of woman and child labor, glass could not be ignored.

Geographically, the manufacture of glass is of wide distribution in the United States. It is, moreover, still in very considerable degree a small-shop industry. There is a growing number of large establishments, but the old type glass factory, with no more than two or three furnaces, is still dominant. According to the census of 1905, glass in some of its forms was produced in that year in 399 establishments, distributed in 21 States, and at the time of the field work of this investigation, in the latter part of 1907 and in thefirst half of 1908, these numbers had been somewhat increased. In not all of these establishments, however, were women and children employed. The making of window glass, for instance, offers no employment to women and very little to children, and in a general way this is true of all varieties of so-called building glass.

The census figures for 1905 show that in 138 establishments manufacturing building glass there were but 25 women and 124 children employed. While it is true that in the manufacture of plate glass women were formerly used in large numbers as polishers, they have since been almost entirely superseded by machinery. For instance, in one of the largest plate-glass factories, having 695 names on the pay roll on a certain date, there were but 5 women, and these were employed polishing out slight scratches on pieces of plate glass where the work to be done was not sufficient to justify the plate being put on the machine. When engaged at such work, women use small felt pads and polish with oxide of iron. The work is very dirty, and since it requires them to be continuously on their feet it is physically severe. It was stated by one of the officers of this company that women had been kept in the industry for a number of years after it had been demonstrated that the work could be done more quickly and better by machinery simply because the old superintendents in the business thought that glass must be polished by women because it always had been.

Disregarding the building-glass division of the industry, the present investigation of the industrial conditions of woman and child workers in the glass industry has confined itself to the following branches of the business: (1) The making of druggists' and prescription bottles, beer bottles, fruit jars, and kindred work done in establishments making these articles; (2) the manufacture of pressed tableware and the decoration of the same as it is conducted in such establishments; (3) the manufacture of lamp chimneys, shades, globes, with all their decorations; (4) the making of blanks for cut glass and the cutting of the glass; (5) the manufacture of electric-light bulbs; (6) the making of aquaria and chemical glassware; (7) demijohn work and the covering of the same with fiber of various sorts; and (8) the making of tube glass for boiler water gauges, thermometer glasses, etc. Two industries auxiliary to the glass industry—the making (technically the "filling") of incandescent lamps and the manufacture of mirrors—were also included in the glass investigation. For the most part, however, the information obtained upon these two auxiliary industries is presented separately from that dealing with the glass industry proper.

The States covered are Massachusetts, Connecticut, New York, New Jersey, Pennsylvania, Ohio, Indiana, Illinois, Wisconsin, Missouri, Kansas, West Virginia, Maryland, Virginia, Tennessee, Georgia, and South Carolina, Factories in Texas and Kentucky were visited, but found closed at the time of the visit. The States manufacturing glassware of the kind covered by this report, but which were not included in the investigation, are Colorado, California, Washington, and Oklahoma. The following table shows by States the number of establishments investigated in each of the more important subdivisions of the industry. The classification is not entirely satisfactory, as a few factories engage in more than one branch of work. But even in such case a factory has always one line of ware in which it specializes, and this has been used as the basis of the following classification:

NUMBER OF ESTABLISHMENTS INCLUDED IN THE INVESTIGATION, BY CHARACTER OF PRODUCT AND STATE.

State.	Glass industry proper.										Auxiliary industries.		All establishments.
	Glass producing.								Nonglass producing.				
	Flint bottles.	Green and amber bottles.	Jars.	Insulators.	Tableware.	Shades and chimneys.	Blank making.	Novelties.	Decorated ware, only. (a)	Vials.	Incandescent lamps.	Mirrors.	
Massachusetts and Connecticut	......	......	......	......	......	......	2	......	1	......	3	......	6
New York	7	1	1	......	......	5	1	......	2	......	......	1	18
New Jersey	14	......	1	......	......	1	......	......	1	......	2	1	20
Pennsylvania	17	4	5	......	13	9	2	......	4	......	1	1	56
Ohio	5	4	1	......	6	4	1	1	......	......	1	......	23
Indiana	11	3	3	1	2	1	......	......	......	......	1	......	22
Illinois	4	2	1	......	......	......	......	......	1	1	......	......	9
Wisconsin, Missouri, and Kansas	1	2	3	......	......	......	......	......	......	......	......	......	6
West Virginia	3	......	1	......	11	1	......	1	......	......	......	......	17
Maryland	4	......	......	......	......	......	......	......	......	......	......	......	4
Virginia	5	......	1	......	......	......	......	......	......	......	......	......	6
Tennessee, Georgia, and South Carolina	3	......	......	......	......	......	......	......	......	......	......	......	3
Total	74	16	17	1	32	21	6	2	9	1	8	3	190

[a] Including glass cutting at factories where the blanks are not made.

It is seen from this table that a total of 190 establishments were covered by this investigation. Of these, however, 11 were engaged in the manufacture of incandescent electric lamps and mirrors, work which, strictly speaking, is not part of the glass industry. Of the 179 factories listed as of the glass industry proper, 169 actually manufactured glass, that is to say, possessed melting furnaces and other equipment for the molding of bottles, tableware, etc., while the remaining 10 factories decorated and otherwise finished glass articles produced elsewhere.

The total number of persons normally employed by these 179 glass factories was 54,964, of whom 45,210 were males 16 years of age and over, 4,049 were females of 16 years and over, and 5,705 were children under 16 years of age. The 8 electric lamp establishments employed 4,143 persons, of whom 815 were males of 16 years and over, 3,244 females of 16 years and over, and 84 children under 16 years of age. The 3 mirror factories were proportionately small, employing in total but 260 persons, of whom 186 were males 16 and over, 66 females 16 and over, and 8 children under 16 years of age. The distribution of these persons by States and by the sex of the children is shown in the next table.

NUMBER AND PER CENT OF MALE AND FEMALE EMPLOYEES UNDER 16 YEARS OF AGE AND 16 YEARS OF AGE AND OVER IN THE ESTABLISHMENTS INVESTIGATED, BY BRANCH OF INDUSTRY AND STATE.

State and branch of industry.	Establishments visited.	Employees.										
		Number.						Per cent.				
		16 years and over.		Under 16 years.			Total.	16 years and over.		Under 16 years.		Total.
		Male.	Female.	Male.	Female.	Total.		Male.	Female.	Male.	Female.	
GLASS INDUSTRY PROPER.												
Massachusetts and Connecticut	3	838	111	42	3	45	994	84.3	11.2	4.2	.3	4.5
New York	17	3,161	260	92	14	106	3,527	89.6	7.4	2.6	.4	3.0
New Jersey	17	5,748	137	497	24	521	6,406	89.7	2.1	7.8	.4	8.1
Pennsylvania	54	9,673	1,288	1,812	327	2,139	13,100	73.9	9.8	13.8	2.5	16.3
Ohio	22	7,874	717	515	52	567	9,158	86.0	7.8	5.6	.6	6.2
Indiana	21	6,686	369	524	40	564	7,619	87.8	4.8	6.9	.5	7.4
Illinois	9	5,366	424	338	7	345	6,135	87.5	6.9	5.5	.1	5.6
Wisconsin, Missouri, and Kansas	6	1,385	105	104	3	107	1,597	86.7	6.6	6.5	.2	6.7
West Virginia	17	2,872	607	646	111	757	4,236	67.8	14.3	15.3	2.6	17.9
Maryland	4	654	29	392	2	394	1,077	60.7	2.7	36.4	.2	36.6
Virginia	6	592	2	90	......	90	684	86.5	.3	13.2	......	13.2
Tennessee, Georgia, and South Carolina	3	361	......	70	......	70	431	83.8	......	16.2	......	16.2
Total	179	45,210	4,049	5,122	583	5,705	54,964	82.3	7.4	9.3	1.0	10.4
ELECTRIC LAMPS.												
Massachusetts, New Jersey, Ohio, Pennsylvania, and Indiana	8	815	3,244	12	72	84	4,143	19.7	78.3	.3	1.7	2.0
MIRRORS.												
Pennsylvania, New Jersey, New York	3	186	66	5	3	8	260	71.5	25.4	1.9	1.2	3.1

The number of woman and child glass workers covered by this investigation may be accepted as thoroughly representative of the employment of such persons in the glass industry. Thus in the year 1908 there were 288 glass factories manufacturing pressed and blown glassware (the branches of the industry covered by this report) in the United States.([a]) Of these, 169, or 58.7 per cent, were covered by the investigation. Of the 119 not covered, 61 were not in operation and therefore could not have been scheduled. In total, therefore, only 58, or approximately one-quarter of all the factories in operation, were not covered. The distribution of these factories by States is shown in the following table:

---

[a] American Glass Trade Directory, 1908. Pittsburg, Pa.

NUMBER OF GLASS FACTORIES IN THE UNITED STATES IN 1908 INCLUDED IN THE INVESTIGATION AND NOT SO INCLUDED, BY STATES.

State.	Establishments investigated.	Establishments not included in the investigation.		Total.
		In operation.	Not in operation.	
Massachusetts and Connecticut	2		1	3
New York	15	6	1	22
New Jersey	16	2	8	26
Pennsylvania	50	14	14	78
Ohio	22	9	3	34
Indiana	21	12	16	49
Illinois	7	1	3	11
Wisconsin, Missouri, Kansas	6	5	3	14
West Virginia	17	4	6	27
Maryland	4	1	1	6
Virginia	6	1		7
Tennessee, Georgia, South Carolina	3			3
Kentucky			3	3
Oklahoma		1		1
Colorado			1	1
California		2		2
Washington			1	1
Total	169	58	61	288

From this table it is evident that in the five States in which no factories were covered—California, Colorado, Kentucky, Oklahoma, and Washington—the industry was of little importance, and that with those States which were covered the number of factories reported upon was in each case a significant proportion of the number in existence.

It is to be noted, furthermore, that the factories not covered in the investigation were of rather small size. This is indicated in the following table, which shows the respective capacities of the factories covered and those not covered, the latter class being subdivided into those in operation and those not in operation:

CAPACITY (NUMBER OF POTS AND TANKS) OF FACTORIES INCLUDED IN THE INVESTIGATION AND NOT SO INCLUDED.

	Covered in the investigation.	Not covered in the investigation.		Total.	Per cent covered in the investigation of—	
		In operation.	Not in operation.		Those in operation.	All.
Establishments	169	58	61	288	74.4	58.7
Pot furnaces	158	29	38	225	84.5	70.2
Pots	1,820	361	424	2,605	83.4	70.0
Continuous tanks	239	66	53	358	78.4	66.8
Rings	2,081	490	430	3,001	80.9	69.3
Day tanks	34	9	28	71	79.0	47.9

An explanation of the meaning of the terms "pot furnace," "pots," etc., will be given later. Here it is sufficient to note that the number of pots and rings possessed by the furnaces of a factory gives a fair measure of the size of the factory, and the number of employees. It is at least a satisfactory measure for estimating relative numbers of employees in two groups of factories, in one of which the number of employees is known. On this basis it may be estimated that the present investigation, covering as it did 4,049 women and 5,705 children under 16 years of age, included approximately 70 per cent of all the woman and child glass workers in the United States during the year 1908.

More precise information upon this subject is not available. The census of manufactures for 1905 ([a]) gives the number of woman and child glass workers for that year; but, besides the difference in the time of the two investigations, differences in methods of obtaining and presenting data render unsatisfactory a comparison of the census figures with those of the present report. The census gives the average number of persons employed during the year, and obtains that number by dividing the sum of the average numbers employed each month by 12. As a large number of glass factories regularly close one or more months during the summer, this annual average is somewhat less, approximately 10 per cent, than would be obtained by the method used in the present report, which was to ascertain in each case the normal number of employees, excluding entirely those months in which the factory was closed for the summer "shut down."

Allowing for these differences, however, a comparison is not without significance. Thus, the census of 1905 reports 261 factories manufacturing pressed and blown glassware, these factories employing, using the average as explained above, 3,430 women and 6,311 children. The present report covers 179 factories of the same general character, and these factories were reported as normally employing 4,049 women and 5,705 children.

It is to be again emphasized, moreover, that the pressed and blown ware branches of the glass industry employ at least 98 per cent of all the women and children in all branches of the industry.

PLAN OF THE REPORT.

The manufactures of glass covered by this investigation are of such varied character that their treatment as a single homogeneous industry is impracticable. All articles of glass have, of course, a common origin in a furnace of molten glass, and all are started by having portions of this soft, viscous glass extracted from the furnace and fashioned by a molding process of some kind into the shapes desired. But further than this no general statements can be made that will apply with any approach to accuracy to all the varieties of glass manufactures covered by this report—bottles, jars, tableware, shades, etc.

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[a] Census Bulletin No. 62. Glass and clay products.

The most striking differences among these several varieties of glassware consist in their relative degrees of decoration or (to use the trade term) "finish." Bottles, jars, tableware, shades, etc., differ among themselves chiefly in the matter of decoration or "finish." A bottle, for instance, needs only to be molded and to have its mouth smoothed in order to be ready for the market. A fancy lamp shade, on the other hand, must not only be molded, it must also pass through a subsequent series of decorative processes. This fact—that, while all articles are molded, some have few or no after elaborations, while others are highly elaborated—permits of the division of the glass factory into two distinct departments—the molding or "furnace" department and the elaborating or "finishing" department. This division is important, marking as it does a clear distinction in the type of building used, the character of the work, and the personnel of the working force.

The furnace department, or, as it is commonly known, the furnace room, is usually a one-story building, of rough and open construction in order to dissipate as much as possible the heat of the large glass-melting furnaces. The workers here are constantly engaged in handling molten or at least highly heated glass, and the appliances and physical surroundings are adapted to that end. The work itself is regarded by nearly all employers as the work of men or boys and as not being suitable for women or girls.

The finishing department, on the other hand, is usually a structure of two or more stories, resembling in its main features the common type of factory building. The work is much lighter than that of the furnace room, largely of a decorative character, and in great part at least adapted to the physical abilities of women. Adult male labor is not uncommon, particularly with the heavier and the more skilled finishing work, but boy labor is little used in the finishing department.

Every glass-making establishment must possess a furnace room, but if the ware produced is of a simple, undecorated character, it need not have a finishing department. A tableware factory, for instance, usually has both departments, the ware being molded in the furnace room and then carried to the finishing room, where it is ground, etched, fluted, etc., as desired. An ordinary bottle factory, on the other hand, consists simply of a furnace department. No finishing department is needed because the ware is of such a simple character that it is completed, or nearly so, in the molding process.

Thus a bottle factory normally consists of a single low building, or series of buildings, all of one type; whereas a tableware factory consists, usually, of buildings of two distinct types, one adapted to the use of the furnace department, one to the use of the finishing department. At times the finishing department may be located in a different part of the community, or even in a different community from the actual glass-producing plant. In a few cases the departments are not entirely separate from a structural standpoint; but the principle of separation is always present, and to regard such separation as complete does no violence to the actual conditions and renders clear treatment much easier. Particularly is this the case since the line of division is a line almost completely separating the women from the children. The furnace room represents the boy-labor aspect of the glass industry; the finishing department represents the woman and girl labor aspect. The few women found in furnace rooms are working in what is universally regarded as boys' occupations, and are being used as substitutes for boy labor. On the other hand, almost all of the women in the industry and very few boys are engaged in handling ware after it has been molded and annealed in the furnace room.

The advantages of thus separating furnace room from finishing department for the purpose of presenting the information of this report are evident. On the one hand, the work of boys in the hot furnace room may be studied without the interruption that would necessarily result from the treatment of the glass factory as a unit; and, on the other, the subject of women in the glass industry may be considered, as it should be, quite distinct from the subject of child labor in the glass industry.

This separation of the subject, therefore, will be observed in the following descriptive account of the work, working conditions, earnings, etc., of women and children in the glass industry. Part I will present these features of employment as they were found to exist in the furnace room, and as the furnace room is preeminently representative of the boy-labor aspect of the industry, the boy will here be emphasized. Part II will cover in similar detail the work of the glass factory outside the furnace room, and as these outside departments have very few boys and nearly all the women and girls, the emphasis will here be placed on the woman-labor aspect of the industry. Some instances of overlapping topics will result from this method of presentation, but this number will be few.

PART I.—THE WORK OF BOYS IN THE FURNACE ROOM.

CHAPTER I.

THE GLASS FACTORY AND ITS EQUIPMENT.

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THE GLASS FACTORY AND ITS EQUIPMENT.

Before presenting the data relative to the work and working conditions of furnace-room boys, it is necessary to describe at least briefly the character of the plant, materials, and equipment employed in the manufacture of glass. Into the actual technique of glass making it is not necessary to enter, but some knowledge of the mechanical side of the work is essential to an intimate study of working conditions in the industry. If, for instance, a condition is found to be bad, it is very desirable to know whether such condition is attributable to bad management or whether it lies inherent in the industry itself.

Questions of this character continually arise in a discussion of the work of boys in the glass industry. The glass factory is unique in many respects. It is unlike almost any other type of factory, and its spectacular surroundings may very well lead the casual visitor to overlook, or at least to misunderstand, its essential features. But it is these essential, largely mechanical, features of glass manufacture and not the spectacular surroundings which determine the ease or difficulty of the shop boy's work and life. Therefore a summary outline of some of the more important mechanical features of glass making has been prepared. The outline is not intended to be at all exhaustive, nor are the terms used always scientifically correct. The terms current in the trade have been generally preferred because of their wide use and suggestiveness, although sometimes this is at the expense of precision.

THE BUILDING.

As the ordinary bottle factory consists of little more than a large furnace room, it may be used for descriptive purposes as a type of furnace rooms in general. A tableware or shade factory is, in structure, nothing more than a bottle factory with one or more attached buildings for the use of the finishing and decorating departments. This being so, the present discussion of the furnace-room building will use the bottle factory as its type, with the understanding that the terms are almost interchangeable.

The usual bottle factory consists of one large main building, with a series of smaller subsidiary buildings, either attached or closely adjacent. Usually the material of construction is wood, although sometimes of brick with iron supports. From the standpoint of the workers' safety the character of the material is not important, as the buildings, although very occasionally of more than one story, are never of a sufficient height to render a fire dangerous to the lives of the employees.

One end of the main building is set aside for the furnace room, which constitutes the predominating feature of the factory. In it are located the large melting furnace, the skilled glass workers, and practically all the boys to be found in the establishment. The remainder of the factory consists of a number of divisions or rooms, all subordinate to the furnace room in importance and size. These are, as commonly found, the leer room, where the ware is removed from the leer, the packing room, the mold shop, the machine room, the mixing room, the pot-making room, the storeroom, and, when artificial gas is used, the gas-producing room. All these rooms are not necessarily present in any one factory, nor need they be rooms in the exact sense of the word. The gas producers, for instance, are frequently located inside the furnace room, and the packing room is, in most bottle factories, a structural part of the leer room. Usually, however, the several divisions have more or less exact limits.

The character of the building which should house the furnace has never been considered of vital importance by glass manufacturers. Glass furnaces were respectably housed in the early days in New England, when wood was used as a fuel. Later, when the industry began to develop in the bituminous coal regions, substantial buildings were almost always erected. It was only with the boom era of the industry, which followed upon the natural gas discoveries in Ohio and Pennsylvania, that glass factories became little more than enormous frame sheds. Many of these cheap, hastily erected buildings still remain, but they are no longer typical and in number do not constitute more than an unpleasant minority of the total. As the industry has become more settled, the type of factory building has begun to improve. The great majority of present-day manufacturers do not believe in the economy of the old migratory habit of moving a factory to follow cheap fuel discoveries, and the newer plants have substantial buildings for permanent occupation.

The furnace-room buildings, however, are always plain and simple in character. The very size and necessary construction of such a building, which must be practically without interior walls, pillars, or partitions, gives it a "shell-like" appearance and creates an impression of cheapness and lack of safety which a closer inspection may not verify. The rather imminent danger of fire, due to the presence of the large furnaces, has been at all times a deterrent of extensive or elaborate structures.

There is considerable uniformity in the appearance of all furnace-room buildings. The roof is high and peaked, seeming to hang upon the curving-in shoulders of the furnace stack. The walls are broken by frequent windows and doors, so large that when they are all open in the warm weather, it seems almost equivalent to the removal of the walls. Frequently the doors and windows extend from the floor to the roof eaves, and these huge windows are usually either on swinging sashes or rolling iron slats so that they can be dropped in winter or during a rain. When these are widely opened in summer the men appear to be working practically out of doors, while in winter the closed doors and windows are usually so ill fitting, that an impression is given of general dilapidation. About everything there is an air of regard only for ventilation and for keeping cool, leaving it to the furnace to provide the necessary warmth in the winter season. The newer iron frame buildings with corrugated iron siding and the most up-to-date brick buildings for housing the more expensive machinery that has come with the development of the industry are like the old types in their abundant provision for windows and doors.

The floors of many of the earlier factories in the gas belt were simply the natural earth; but now it is quite unusual not to find some kind of artificial flooring—boards, brick, or cement. Generally speaking, the floors are in poor condition of repair whatever the material used in the construction. In only 10 per cent of the establishments visited could the floor of the furnace room be said to be smooth or in good condition. Usually uneven and rough, they are sometimes wet and dank. When this condition is due to the careless handling of the large tubs of water present in many furnace rooms, it is a matter that belongs to the consideration of general working conditions and will be treated later. In three establishments, however, the soggy floors were due simply to inadequate protection from rain; to the condition of the buildings and not to matters within the control of the workmen themselves. These were, however, exceptional cases.

THE FURNACE.[a]

The melting furnace is the dominating feature of the furnace room. It is a large brick structure, solidly built in order to withstand the very high degree of heat necessary to melt the ingredients which go to make glass.

There is considerable variation in the details of furnace construction. On the whole, however, the important differences are few, and there are only two distinct types of furnace in use—the pot furnace and the tank furnace. The work done by the labor force is the same with both of these types, but the resulting working conditions differ in some particulars. Therefore it is necessary to give a brief description of each.

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[a] This description does not cover the automatic machine factories, of which only three were included in this investigation.

The external appearance of a pot furnace may be likened to a huge truncated cone of brick; the lower half, under the roof of the building, resting upon a deep-sunken solid foundation; the upper portion passing through the roof and narrowing into a squat, dome-shaped chimney that long formed the landmark of the glass factory. The walls of this cone-like structure are about 18 inches thick, with a number of arched-over openings at intervals. In these openings and within the furnace are placed a series of clay pots, arranged in a circle. One edge of each pot points inward toward a central fire pit; the other edge is flush with the inner surface of the furnace wall. At the point of contact of the pot with the wall an opening in the wall is left, in order that the blower may have access to the glass when melted. Through this "working hole" the blower inserts his thin iron pipe and gathers his preliminary "gob" of molten glass. When a pot is emptied as a result of the continuous extraction of these small "gobs," and it takes only a few hours to do so, the pot is refilled with cold batch and left awhile to melt. The heat, pouring from the central fire and forced outward by the drafts, envelops the pot of cold batch and gradually melts the ingredients until they fuse into a viscous mass.([a])

Around the base of this circular furnace is a raised platform about 3 feet wide, upon which the blowers stand, and which in the trade is known as the "foot bench." The height of the bench above the floor of the building will depend somewhat upon the construction of the furnace, and varies from 18 inches to 3 and 4 feet. In some of the older factories the foot bench is absent, the blowers using low boxes on which to stand while blowing.

At a point, usually about halfway between the floor and the roof of the building and encircling the entire furnace are large sheet-iron pipes connected with an air-pumping device. A number of smaller pipes connect with larger ones, one dropping to within a few inches of each iron mold or machine in the furnace room. Through these pipes a current of cool air under light pressure is constantly forced, which, playing upon the molds and machines, prevents them from becoming so hot that the glass would adhere. Indirectly these air currents contribute to the comfort of the workers.

The pot method of melting glass is expensive. The pots must be made of selected clay, built by men skilled at the work, and slowly and carefully made in order that the clay may properly harden. Furthermore, even when the pot has been built its life is very uncertain. The slightest flaw will develop under the intense heat to which it is subjected, and even when there is no flaw disintegration shortly sets in. It is unusual for a pot to last more than three or four months, and often its period of usefulness is of very much less duration. When broken or outworn the old pot must be replaced, and its replacement is a troublesome operation. Moreover, the capacity of a pot is so limited that usually it is emptied in a day's working, whereupon twelve hours at least are necessary for melting a new batch of glass.

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[a] There are two styles of melting pots in use, the open and the covered. The open pot is used for all varieties of cheaper glassware such as beer bottles and jars; the covered pot for the finer varieties of flint or crystal such as lamp chimneys or good quality tableware and druggists' bottles. There are some differences in the construction of the furnaces housing these two types of pots, but the differences do not affect the working conditions of the shop boys and thus need not be described in detail.

The search for a more economical method of glass melting led to the development of the tank furnace, the chief feature of which is the substitution of one large receptacle or tank for the several small pots of the older style furnace. The tank, just as the pot, must be built of a high-grade fire clay and is somewhat laborious of construction. One tank, however, may be worked through a large number of working holes, and normally a tank may be operated continuously through a whole working season.

A continuous tank is built in the general shape of a rectangle, with one of the ends bulged out forming a semicircle. This, the working end, projects into the working area and is usually partitioned off by a building wall meeting the furnace about in the center. Back of this wall projects that portion of the furnace wherein the raw materials are fed and the heat for melting applied.

The working, semicircular end of the tank is punctured with a series of "working holes," through which the blowers reach the molten glass with their pipes, and around this end of the tank is a platform or "foot bench" quite similar to that used with the pot furnace. Also, as with the pot furnace, there is a somewhat elaborate air-pipe system for cooling the molds and machines.

The important feature of the tank furnace is that of continuous operation. There is one type of tank furnace—the "intermittent" or "day" tank—which is not continuous, requiring daily filling and melting. This type, however, is little used. It was the continuous feature of the tank furnace that rendered it of such great value to the manufacturer. As it permits of melting simultaneously with the extraction of glass, no stoppage for melting a new batch is necessary, and work may continue day and night without interruption.

The tank has practically displaced the pot furnace for all varieties of green glass. For finer flint and lead glass, however, the pot method is generally preferred. Also, if several varieties or colors of glass are being made, or if a frequent change in variety or in color is desired, the pots are the more convenient. It is a lengthy and troublesome process to empty a tank and fill it again with another kind of glass. The pot, however, emptying itself each day as it does, permits of such a change with utmost ease.

The use of the tank in place of the pot furnace has two effects upon the conditions under which the work is carried on. In the first place, the continuous tank is primarily responsible for the prevalence of night work. With the pot furnace night work is possible by using only a portion of the pots on each shift. But the economy is not so palpable as it is with the continuous tank, and before the introduction of the tank night work in the glass industry was not very common. In the second place, the working arrangements about the two classes of furnaces differ. The pot furnace has a complete circle of working holes, only alternate pots being used at one time, with the result that the workers at such a furnace normally have more room and better ventilation than those working at a continuous tank, where all the working holes are at one end and all in use. However, a few cases were scheduled of pot furnace workers being very badly crowded.

THE REHEATING FURNACES.

Close by the foot bench of the furnace are placed the small reheating furnaces, called "glory holes" in bottle factories and "warming-in furnaces" in tableware plants. These reheating furnaces are entirely independent of the main furnace, and are used solely for partially reheating such articles as have become too cool for working before all the desired shaping processes have been completed. As all bottles and very many other articles require such reheating before being finished, the great majority of furnace rooms have these subsidiary furnaces.

The older and still most common form of reheating furnace is stationary, and, usually, though not necessarily, of brick. Each one may have several openings and thus be available for more than one group of workers. A newer style "glory hole" is of iron, resting on a trestle work, and is easily portable to suit the convenience of the workers.

THE ANNEALING OVENS OR "LEERS."

All articles of glass manufacture, except offhand lamp chimneys and electric-light bulbs, must be annealed; that is to say, must be cooled gradually after making. If cooled too rapidly by simple exposure to the air, the exterior pores close more quickly than the interior pores and the glass becomes brittle; either cracks immediately or will crack under the slightest strain.

Annealing ovens may work on either of two principles. The first principle is that of placing the ware in a heated receptacle and gradually allowing the heat to diminish until the temperature is reduced to that of the outside air. This is known as the "intermittent" or "warming oven" method. The later, and cheaper, method is by means of the continuous oven or "leer," which in recent years has almost entirely displaced the old-style oven.

The leer is a long, narrow structure of brick, closed on the sides and top but open at the ends. At one of these ends—the "mouth"—the heat is kept at a very high point, ranging from 800° to 1,000° F. The newly made ware is placed in the iron pans on the bottom of the leer at the mouth under this high temperature and is carried very slowly by the moving belt through zones of steadily decreasing temperatures until it emerges from the far end of the leer thoroughly annealed and practically cold, ready for packing, or for the finishing department if the ware is of a character requiring further processes. This annealing process requires usually twelve hours, though for very thin-blown ware much less time suffices. The leer must be necessarily quite long, and few of them are under 40 feet in length.

BLOWPIPES, MOLDS, MACHINES, ETC.

The large melting furnace, the small reheating furnaces, and the leers are the heavier, more permanent equipment of the furnace room, and constitute the principle sources of heat. The remaining equipment consists of the working tools or implements. In a factory making hand-blown ware such implements are limited to the blowpipes and molds.

The blowpipe is simply an iron pipe about five-eighths of an inch in diameter in the smallest part and ranging from 4½ to 5½ feet in length. At one end is a mouthpiece into which the blower blows; at the other end the pipe is slightly enlarged for holding the glass. This end is thrust into the molten glass of the furnace, and turned until enough glass "gathers" on it to make the article desired. These pipes are kept, mouth end up, in a rack which stands near the edge of, sometimes upon, the foot bench, within easy reach of the blower, who usually has three or four of them available for use. The pipes are not always carefully restricted to the use of the same individual, nor is there any attempt at disinfection of the mouthpieces in cases of indiscriminate use of the pipes. In only one of the visited factories were blowers provided with sets of individual pipes.

The molds are placed just outside the foot bench. If the foot bench is high enough above the floor of the building the molds are set on the floor or slightly above it. If not, pits are sunk in the ground and the molds are placed therein. The ordinary joint iron open and shut mold, such as is used in the production of druggist prescription ware, is a two-piece hollow cast-iron spheroid, the hemispheres, being fastened together with heavy hinges, the cupped sides in, and opening and closing horizontally by means of two handles about one foot in length. The inside of the molds, cast in separate pieces, are adjustable, may be removed and replaced by others, thus making a different form or size of bottle. When closed, the sides and bottom fit tightly together, while at the top there is a cupped indenture on each half of the mold which fits around the blower's pipe and also forms the long narrow neck of the bottle. These molds, in a prescription bottle house, are placed in pairs a few inches apart, so that one mold boy can operate two. Variants from this type of mold will be described later. It is sufficient here to note that their general form and their position in the economy of the furnace room are identical.

When pressing and blowing machines are used no molds, such as just described, are necessary, the machines themselves doing the molding. Otherwise the presence of the machines does not greatly change the appearance and organization of the furnace room, and, because of this, an account of the operation and functions of such machines may be reserved until later.

To complete this broad description of the furnace room it is necessary to mention the coal-gas producers. Comparatively few plants produce their own gas from bituminous coal, but when this is done the producers are usually placed in a separate room back of the furnace but in the same building. In only one of the furnace rooms visited, however, were such producers placed in a separate building at a comfortable distance from the furnace room, although the proximity of the gas producer to the working room of a furnace is a great, if not the greatest, source of objectionable fumes in a blowing room. No detailed description of the mechanism of a fuel-gas producer need be given here as it is not in any sense peculiar to the glass industry.

THE INGREDIENTS OF GLASS ("THE MIX").

Glass, in its commercial sense, is a fused mixture of silica, usually in the form of natural sand and two or more alkaline bases, such as soda, lime, or potash. These substances enter the factory in a raw, powdered state and go first to the mixing room. This room is either in the basement or back of the furnace, but partitioned off from the furnace room. Here the relative proportions having been determined upon, the selected ingredients are thoroughly mixed. This is known as the "mixing of the batch."

The quality of the glass depends largely upon the character of the "mix," and very often a slight departure from the prescribed proportions will result disastrously. As a consequence, the making of a satisfactory formula and its proper use become matters of utmost concern. The formulas used for approximately the same grades of glass vary considerably from factory to factory, and each factory regards its favorite formula as, in a measure, its peculiar secret. Until very recently such formulas were determined entirely by an empyrical method, and the element of "luck" thus introduced contributed to the popular acceptance of glass making as a "mystery." Even at the present day these elements of luck and mystery are at least respected by many glass makers, although the increasing use of chemical analysis in determining the proper proportions of the batch is gradually converting this branch of the work into a matter of applied science.

By varying the ingredients of the mix and their relative proportions, distinct varieties of glass may be produced. Also by the addition of dyes, usually in the form of metallic oxides, a wide range of colors is made possible. These several varieties of glass have, of course, their major properties in common; their minor differences, however, may be of very considerable importance.

For the purpose of the present discussion such possible varieties may be limited to three—green glass, flint glass (more properly lime-flint), and lead glass (more properly lead-flint). Under the term green glass are included all varieties of common glass—common because its ingredients are not selected and purified. It is used in the making of beer and soda bottles and other cheap ware. Flint glass may be regarded as a purified glass. It is used in making all of the better grades of clear bottles and the greater portion of table ware. Lead glass contains, as its name suggests, a large proportion of lead. This gives the product a peculiarly rich tone and color which renders it suitable for fine tableware, especially when in the form of cut glass. Scientifically this classification of glass can not be defended, but the terms given are more or less standard in the trade, suggest in some degree different methods and conditions of work, and offer a convenient system of classifying certain phases of the glass industry.

The ingredients of a batch, once determined and weighed, are thoroughly mixed on a clean floor by means of shovels; then, either carted to the pots or tanks in wheel-barrows, or, in some of the more up-to-date plants, conveyed mechanically through tubes.

In pot furnaces, this filling of pots with "raw batch" is usually, though not always, done in the morning or evening, during the interim of change from day to night crew or vice versa. As a pot will hold approximately a ton of molten glass, and the shrinkage in weight from batch to melt is about 15 per cent for closed pots and from 25 to 30 per cent for open pots and tanks, the requisite quantity of batch can not always be put in at one time. In the case of continuous tanks, of course, the "feeding" is going on all the time. The pots being filled with the mix, the firing process begins.

Originally the heat was supplied to the pots directly, i. e., by building a fire in the center of the circular furnace. The fuel of the earlier glass furnaces was always wood, artificially dried, and with it direct firing was, of course, the only method possible.(a) When bituminous coal became the fuel of the industry direct firing continued, and is the method used in one or two plants still. With the advent of natural gas and the introduction of the tank, the method of firing changed. Direct firing was not possible with the tank because of its size. To reach effectively the contents of so large a receptacle it was necessary that the flames be forced across the top of the tank. This was made possible by the use of natural gas, which could be led by pipes and the flames directed at will. Natural gas, indeed, proved to be an ideal fuel for glass melting. Not only was it cheap; it also gave an almost perfect combustion and was so easily controllable that an almost exactly uniform heat could be maintained. With it the indirect method of firing was easier than the direct, and, being better, it was soon used with pot furnaces as well as with tanks.

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[a] Wood was used as fuel in the United States as late as 1865.

CHAPTER II.

THE PROCESSES AND OCCUPATIONS OF GLASS MAKING.

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THE PROCESSES AND OCCUPATIONS OF GLASS MAKING.

INTRODUCTION.

Originally glass blowing was purely a handicraft; no machinery and only a very few tools being used. The skilled blower needed the help of one or more unskilled assistants, young boys they usually were, to do his carrying, to clean his blowpipes, etc., but otherwise he was an entirely independent worker. Later, molds were introduced to aid him in shaping the articles, and to that extent his skill was reduced. Still later came mechanical devices which pressed the simpler articles in molds without the need of blowing, and finally machines appeared which actually blew glass. The first of these blowing machines (1895) dispensed with the blower as such, but still needed a skilled glass gatherer to feed the machine and a skilled glass-worker to operate the pressing and blowing levers. Improvements were devised, however, and in 1898 appeared an entirely automatic bottle-blowing machine. Machinists were required, but no glass-workers of the old type.

The successive improvements in the methods of glass making not only affected the skilled men; the unskilled assistants, the boys, were also affected. Their numbers and their duties and the conditions under which they worked underwent important changes.

It is of much importance to note, however, that in few, if any, cases did an improved method entirely supersede the former method. The machines were limited to certain classes of ware, and even the old off-hand method had left to it a residuum of work which the newer methods could not well perform. As a result, practically all the systems of working and all the devices of the past are found in active use today, and, not infrequently, side by side in the same factory. Therefore in attempting to distinguish and describe the present occupations of boys in the glass industry it is necessary to enter into the various processes of glass making in some detail.

The shop boys are primarily the blowers' helpers. They clean the blowpipes, open and shut the molds, carry the articles when blown, and otherwise help the skilled men at their work. At an early date the shop boys were perhaps literally boys in age, but at present this is not the case, a very large percentage being well over 16 years of age. Irrespective of age, however, any person doing the work of a helper is known as a "boy," and the word is used in this report without any other significance.

The work of the different shop boys is by no means uniform. They are assigned specific tasks, specific occupations, at which they may remain from day to day without change. In the present investigation there were listed 40 distinct boys' occupations. Each of these forty differs from the others in certain definite features, but in many cases the differences are very unimportant so far as concerns the difficulty and general character of the work. Omitting, therefore, minor shades of difference, the number of occupations may be reduced to less than a dozen. To explain the work of each of these it will be necessary to consider separately the work of each occupation. This can best be done by outlining with some fullness the process of molding certain typical varieties of glassware.

Four varieties will be sufficient for the purpose: (1) Prescription bottles, representing hand-blown bottles; (2) tumblers, representing paste-mold ware; (3) milk jars, representing machine-made ware; and (4) off-hand lamp chimneys, representing all varieties of off-hand ware. Description of the making of these few articles does not exhaust, of course, all glass-making processes or all the possible boys' occupations. But individually each article is typical of a very large class, and collectively they are representative of all the important varieties of glassware. Also in their making are found all the important boys' occupations.

PRESCRIPTION BOTTLES.

The manufacture of bottles forms by far the most important single branch of the glass-making industry. Of the 179 establishments scheduled for this report, 107 confine themselves exclusively, or almost exclusively, to the manufacture of bottles, jars, and neck ware of a similar type. The bottles made vary greatly in character and size, and the making of such diverse varieties necessitates some diversity in the methods of making and in the character of the glass makers' work. But with the exception of the machine-made bottles, later to be considered, the resemblances are much more important than the differences. Therefore, the following description of the making of a single article—a prescription bottle—may be applied with much exactness to nearly all varieties of hand-made bottles. A prescription bottle is selected because of the fact that its making requires a maximum number of boys, engaged in nearly all the occupations possible for them in a bottle factory.

The employees of a furnace room making prescription bottles are arranged in producing units or "shops," each shop grouped about one of the working holes of the furnace. The shop consists of seven persons, of whom three are skilled men and four unskilled "helpers."

In all union plants, and some nonunion plants, the three men are highly skilled blowers, two of whom are blowing at one time, while one is finishing for the other two. These alternate usually every half hour; so that each blower is finishing one-third of the time and blowing two-thirds, this system being a union regulation and generally obtains whether or not the plant is entirely union. In a few nonunion plants, however, particularly in Indiana, there are but two skilled blowers in a shop, the finisher being a comparatively unskilled man who has been taught only that part of the work. In such cases there is of course no rotation of work between blowers and finishers. The blowers stand upon the foot bench near the working holes of the furnace, gather the molten glass from the pot, and blow it into the mold. The finisher sits on a bench near the glory hole and finishes the neck of the bottle and puts on the "lip."

The four unskilled helpers are termed, respectively, the mold boy, the cleaning-off boy, the snapping-up boy, and the carrying-in boy. The mold boy sits or stands at the blower's feet and tends the molds, opening and shutting them as required by the blower. The cleaning-off boy stands beside the blower and cleans the blowpipe after each using. The snapping-up boy and carrying-in boy are engaged in carrying ware, the first from the blower to the finisher, the second from the finisher to the leer.

The actual work of the shop proceeds as follows: Standing in front of the working hole of the furnace, the blower dips in his pipe and gathers on the end of it a lump of molten glass. This he removes from the furnace and rolls and smooths upon a slab, meanwhile lightly blowing into the free end of the pipe. When by this means the rough lump of gathered glass is brought to an even, somewhat conical shape, the blower ceases the rolling, and, with his lips still to the pipe, swings the glass back and forth until it is elongated two or three times its former length. At this stage the suspended glass is of a pear shape, with a small central air cavity or core.

The mold tender now opens one of his two iron molds, and into it the blower lowers the partially formed portion of glass. Whereupon the mold is closed, and the blower blows into the pipe with sufficient force to distend the glass to the exact shape of the hollowed-out pattern. A continuance of the blowing distends that portion of the glass which is above the top of the mold into a mere film, when it breaks, freeing the stem from the bottle in the mold. This filmy glass, which is so light that it floats in the air, will hereafter be referred to as the "blow-over." This "blow-over" bubble is immediately shattered by the blower in disengaging the pipe. The mold tender, having closed the mold for the blower, leaves it closed for a few seconds while he turns to the other mold for which the second blower is now ready with his gather of glass. Having treated the second mold in similar fashion, he returns his attention to the first mold, opens it, removes the now partially cooled bottle with a pair of tongs, and places it on a stand at his side. The mold boy thus operates two molds, one for each of the two blowers in his shop.

There is one cleaning-off boy for each shop. He stands convenient to the reach of each of the two blowers, and each, after the blowing is done, hands him the used pipe to be cleaned. The cleaning-off process consists in scraping away the excess portion of glass which adheres to the pipe end after each blowing. The work is done by simply rubbing or striking the clotted end of the pipe upon an iron rasp.

The bottle when removed from the mold by the mold boy is by no means complete but must pass to the finisher to have the neck and the "lip" at the top carefully formed on it.

To assist him, the finisher has as a helper, the snap-up boy, who picks up the bottle with a pair of pincers from the stand where it has been placed by the mold boy and inserts it neck upward in a receptacle, known as the "snap," which is of just the size and form to fit the bottle. This "snap" consists of a heavy sheet-iron can to which an iron handle about 3 feet long is attached. With this he hastens to the "glory hole" or reheating furnace, pausing only long enough to rub off of the neck of the bottle the excess glass left by the "blow-over." This is done by rubbing it back and forth with a rotary motion on a piece of sheet iron. The bottle, still held in the snap, is now inserted in the glory hole so that the neck is just in the flame, the position being determined by a pair of guides in which the handle of the snap rests. When the neck has been sufficiently softened by the heat, the bottle is removed by the finisher, who is seated on a bench slightly behind and to one side of the glory hole. Holding the handle of the snap in one hand he rolls it back and forth on the horizontal arm of his bench, while with the other hand by means of a peculiarly shaped tool he forms the neck of the bottle. This tool consists essentially of two parts, a short pointed rod which inserted in the neck of the bottle opens it out and a pair of hinged jaws, each having in it a groove, which when the bottle is turned forms the lip on the neck. In order to prevent the tool from sticking it is dipped each time by the finisher into a mixture of resin and charcoal. When the neck is satisfactorily formed, the snap is hung in a rack near his bench, from which the bottle is removed by the snap-up boy on his next trip to the glory hole and placed upon a stand. This is sometimes done by a separate helper, known as the "throw-out boy," but in such cases it is rather as a means of training green boys than a matter of necessity or economy.

From this stand the bottles are removed by another helper known as the "carry-in boy," who is practically an assistant to the entire shop. His function is to carry the finished bottles in varying numbers, depending upon the size of the bottles, to the leer and therein to arrange them in regular order. In doing this the bottles are placed upon a flat paddle, which is usually of iron, with an asbestos front, and with a hollow iron handle, usually eight or ten feet long. Instead of picking the bottles up one by one, although this is sometimes done, the work is usually facilitated either by standing the bottles up against a horizontal wire by which they can be tipped on to the paddle, several at a time, or by providing the paddle with a removing handle so that the bottles can be piled upon the body of the paddle by the snap-up boy.

In the production of other kinds of bottles, the chief differences to be noted are concerned with the organization of the shop, and the way in which the ware is formed. In a shop making beer bottles, or soda bottles, exactly the same number and arrangement of the skilled blowers are found, but instead of having a helper to open and shut the molds, this is done automatically by means of a treadle operated by the blower's foot, the bottles being removed from the mold either by a special helper known as the "take-out boy," or by the "snap-up boy," who in this case performs a double function and is paid at a higher rate. Another peculiarity of beer-bottle making is that on ware of less than quart capacity the pipe is not cleaned off after the bottle is blown, but the glass for the next bottle is gathered immediately. In shops making bottles of quart size or larger, a portion of the glass is removed by a helper known as the "pull-off boy." This is done by inserting the end of the pipe bearing the hot glass in a pair of large jaws operated by the foot of the helper, and pulling off as much of the glass as is necessary.

PASTE-MOLD TUMBLERS.

The distinctive feature in the making of tableware is the use of the paste mold, instead of the ordinary iron mold commonly used in bottle making. A paste mold is simply an iron mold lined with a thin coating of carbon paste, constantly kept moist. The contact of the hot glass with the moist paste forms a thin film or cushion of steam which prevents the glass, even when fully blown, from coming into direct contact with the mold itself. Friction being thus removed, the blower is able to twirl his pipe while blowing, and thus prevent the formation of ridges, which would otherwise appear at the line where the two pieces of the mold fit together. Only ware of a perfectly round shape can be made in the paste mold, as any other shape would not permit of the necessary twirling motion.

Ware made in the paste mold possesses a better tone and texture than iron-mold ware, may be thinner and more delicate in structure, and is believed to better stand usage and change of temperature.

Very fine bottles are sometimes made in this manner, but its chief use is in the making of the finer grades of tableware and lamp shades, where decorative quality is one of the primary desires.

In making paste-mold ware—a tumbler, for instance—the early stage of the work is quite similar to that followed in bottle making. The blower gathers the customary "gob" of glass on his blowpipe, and after smoothing it and starting the air bubble inside, lowers it into the mold. Thereupon, he blows into the pipe until the glass is distended to the shape of the mold. All the while he is blowing he keeps constantly twirling the pipe so that the glass in the mold is never at rest, and thus never has opportunity to receive the impress of any irregularities which may be present in the mold walls.

So far, except for the twirling, the work of blowing the tumbler is the same as that of blowing a bottle. The other operations, however, are somewhat different. In the first place, a mold boy is usually not employed. After each use the paste mold must be immersed in water, so that the paste lining may be constantly moist. Commonly this is accomplished by a mechanical contrivance operated by the blower's foot. By this means the mold is opened and closed and also immersed in a receptacle of water by the blower himself, without the services of a mold tender being necessary. In some few factories, however, this simple mechanical device has not been adopted, and the mold is handled by boys. In such cases the boys must lift and dip the heavy molds.

A second feature that distinguishes paste-mold tumbler making from the iron-mold bottle making is the different sense in which the term "blow over" is used. It will be remembered that in making a bottle, the blower, after blowing the bottle, continues to blow after the mold is full, thus forming a bubble at the joint of the pipe with the mold. This bubble bursts, and the "blow over" floats in filmy particles in the air.

In making paste-mold ware—a tumbler, for instance—the method is different. No bubble is blown, and in consequence there is no floating glass in the air. The article, after being blown, is lifted out on the end of the pipe, and the pipe, with the article attached, handed to a helper known as the "cracking-off" boy. The "cracking-off" boy stands near the mold, in approximately the same position as the mold boy. He receives the pipe from the blower, and with a quick stroke of a file cracks off the tumbler from the pipe. Then, placing the article on the stand for the carrying-in boy, he proceeds to clean the pipe end, thus performing the duties of the cleaning-off boy as previously described.

The tumbler at this stage resembles less a tumbler than it does a neckless bottle. When, however, the shoulder of this bottle-shaped article is cut around at the proper point the tumbler appears in its true form. This cutting off, however, is not done in the blow room. The tumbler, with its uncut shoulder, is carried directly to the leer for annealing, the cutting off being done, as earlier stated, in the finishing department, usually by women, after the glass is cold. This being the case, there is no "finisher" in the paste-mold shop as there is in the bottle shop, and consequently there is no snapping-up boy. The carrying-in boy, who takes the ware to the leer after it has been cracked off the pipe, does precisely the same work as the carrying-in boy in the bottle factory.

The regular boys in a paste-mold shop are therefore a cracking-off boy, a carrying-in boy, and, if the foot treadle mold is not used, a mold boy.

When certain varieties of tableware are made, additional boys may be necessary. Articles with handles or stems, such as pitchers and goblets, are the best examples. In making such ware—goblets, for instance—the article must pass through two stages. First, the body of the article is blown in a paste mold, as was the case with the tumbler; second, and while the glass is still warm, the stem and foot must be attached. To do this the body of the article, after being blown and cracked off, is carried to the "finisher," a skilled glass blower, who occupies the same relative position as a finisher in a bottle factory. While the finisher holds the body of the goblet in a holder, a boy known as the "bit boy" gathers a thread of glass from the furnace, and, coming to the finisher, passes him the thread on the end of the pipe. The finisher catches one end of the thread on the bottom of the goblet body, severs the other end from the pipe with shears, and with his tool works it into the shape of a stem. In a similar fashion the foot is adjusted on the bottom of the stem.

The boy who carries the ware from the crack-off to the finisher is commonly called the "carry-over" boy, and this term is applied generally to all boys in tableware or shade factories who carry partly finished ware from the blower to the finisher, or from one finisher to another. The work requires constant walking and the carrying of the articles one at a time. The "bit-boy," who gathers the portion of glass for the goblet foot or stem, is generally doing work of a somewhat high grade and needs some experience. As a result the older, more experienced boys are placed at this work. This is particularly true when a large thread of glass, such as is necessary for a pitcher handle, is to be gathered. In such cases the boys are rarely under 16 years of age, and the work is hardly regarded as that of a boy's occupation.

MACHINE-MADE WARE.

There are three important types of glass-making machines—the press machine, the blow machine, and the automatic machine. The press machine and the blow machine are of similar construction, the blow machine being really a pressing machine with an additional attachment for blowing. Thus a description of the work of the blowing machine will be sufficient to explain the working of both. The machine described is one of an older type, this being the simpler, but the conditions of work on all types are approximately the same.

A blow machine of a type common in the making of the large-sized jars—such as milk or olive jars—is in appearance a flat, rectangular, iron table about 3 by 5 feet, with two overhanging arms, each supporting a plunger. Two molds, of the type used in handwork, but smaller, rest upon the table. The operating force consists of three or four persons—two skilled glass makers, a gatherer, and a presser, and one or two unskilled assistants commonly known as "machine boys." In addition to these there is, as usual, a carrying-in boy to each shop. As the machine must be fed continuously with glass it is placed very close to the furnace, usually within 5 feet, in order that the work may be speeded as much as possible.

The gatherer reaches his pipe through the working hole of the furnace and collects a lump of glass, just as the blower in a hand shop does. But, instead of then blowing into the pipe, as does the blower, he lifts and suspends the lump of glass immediately above the nearest of the two open molds of the machine. The glass, being soft, tends to drop into the mold of its own weight, but to accelerate the motion and to assure better there being the exact amount of glass, the presser with a pair of scissors shears off the proper portion. The detached lump drops into the mold, and the presser with his free hand moves the pressing lever. The plunger descends and mashes the soft glass into the shape of the mold. The total result of the pressing is to form the neck of the jar and leave a cavity in the center of the mass of glass, which, as a result of the next process, will form the body of the jar.

With the lifting of the pressing plunger the machine boy takes up his work. First he lifts out the half-formed jar and deposits it in the second or blow mold, which contains the exact pattern of the jar. Next he moves a lever which causes the second, or blowing plunger, to descend upon the blow mold and fit exactly over the top of the jar neck. Compressed air then pours in through the plunger and blows the unformed body of the jar into the shape of the mold pattern.

The jar is now complete, and the machine boy's final operation is to remove it from the mold and place it on the stand for the carrying-in boy. If two boys are used on the machine they roughly divide the work, one boy attending the first mold and the plunger and the other boy attending the second mold.

As contrasted with the hand shop it is to be noted that the machine shop has no need of a cleaning-off boy, or a snapping-up boy, or for a mold boy, as such. The work of the machine boy has some similarity to that of a mold-tender, but the differences are still more marked.

The automatic machine improves upon the simple blowing machine by using a self-feeding and self-pressing device. The machine consists of a series of revolving arms, each terminating in a mold. As the arm passes the furnace in revolving it receives a portion of glass in the mold, and while the mold is still in motion the glass is blown by compressed air into the desired shape. Just before the arm completes its circuit the mold opens and shows the completed bottle. The whole operation is entirely automatic. No skilled glass makers are used, machinists alone being necessary.

To remove the completed ware from the machine and to carry it to the leer unskilled helpers, or boys, may be used. Both of these operations, however, are sometimes performed by machinery. If a human "take-out" is used he stands near the furnace, in the angle formed by the machine and furnace wall, and as the mold opens and exposes the completed article he seizes the article with a pair of tongs and removes it from the machine. If the carrying in is done automatically he places the article upon the carrying-in conveyer near at hand, and upon it the article is taken to the leer. If the carrying in is done by hand, the taking-out boy places the ware, as removed, upon a table, whence it is taken up and carried to the leer as in an ordinary hand bottle shop.

The automatic machine is here sketched very lightly because of the fact that it is relatively unimportant as an employer of child labor. The automatic machine not only tends to greatly reduce the number of boys employed per unit of product, but it also has a decided tendency to raise the ages of such boys as are employed. Older boys are usually preferred.

Because of this infrequency of child labor on the automatic machine, and because the whole character of automatic-machine factories is so different from that of the older and still predominant type of factory, it may be, and will be, generally disregarded in the body of this report. Except when specifically mentioned all succeeding statements will be understood to have no reference to the automatic machine.

OFF-HAND LAMP CHIMNEYS.

Offhand blowing—that is to say, blowing without the aid of molds of any kind—is the most skilled and, at the same time, the most primitive work which now exists in the manufacture of glass. As earlier mentioned, it is of constantly diminishing importance in the trade, and at present is limited almost entirely to certain very large bottles, which would require huge, unwieldly molds, and to lamp chimneys a considerable number of which are still made offhand, although the majority are made in paste molds. The following description of offhand chimney blowing will disregard certain minor differences of shop organization and limit itself to the method followed in one important establishment:

In offhand work as here done, there is little division of labor, two men and one boy being the only ones to handle a chimney from its inception as molten glass until it is ready for packing. The process is as follows: The gatherer, who needs to have no considerable experience, but who is never less than 18 years of age, collects a flattened ball of molten glass on the end of his pipe, and this he shapes, by rolling on a "stone" and by gently blowing, into the form of an elongated hollow pear. The pipe is then taken by the blower, who by skillful manipulation and careful blowing, entirely unaided by tool or gauge, distends the glass until the wall is sufficiently thin and the general shape of a chimney is assumed. At this stage, indeed, it is a perfect chimney in its body and needs only to have the closed ends opened. The opening of the lower end is first attended to. The blower, while the glass is still hot enough to be ductile, pinches, by means of a pair of forceps, a small knob on the lower end of the glass bulb. Immediately the glass cools, becomes brittle, and the knob is cracked off by a quick blow, leaving a small irregular hole. This end is then inserted into a reheating furnace similar to a "glory hole," and as soon as the glass is softened, the blower, by two or three quick turns of his forceps, widens the narrow hole into a broad flat collar. This is the base of the chimney, the portion that fits into the holder of the lamp.

At this point the base, the length, and the diameter of the bulb are tested by gauges. The measurements having been found correct (and they almost always are) a turn of the tool around the chimney where it joins the pipe makes it ready to be cracked off, and it is in this shape that the finishing boy gets it. Holding the chimney in what is a pair of tongs on the end of an iron rod, the boys warm the top in the reheating furnace, and then when it is hot, finishes the top on the crimping machine. The crimping machine is a circular "crimped mold" inside of which a cone revolves which smooths out the top of the chimney and guides it true to the mold. The chimney is now ready for packing.

Thus, in offhand chimney blowing the so-called "finishing boy" is the only person engaged in an occupation which may be filled by a child.

DIFFICULTY AND PHYSICAL STRAIN OF THE WORK.

The preceding description of the process of glass making has pointed out the place of the shop boy in the organization of the furnace room and the general character of the work which he performs. The physical severity of his work is one of the most important aspects of the question of the employment of children in the glass factory, but it is one of which a clear picture can not easily be given. This is so for several reasons. In the first place, the work of all the boys is by no means of the same character; the occupations are of different degrees of severity. And in the second place, the severity of shop boys' work is a compound of many factors—the physical strain of the work itself, the heat of the room in which they work, possible dust and fumes, etc.

The boys of a given factory usually change occupations from time to time, but in many instances they do not do so; a mold boy, for instance, may remain a mold boy during the whole time of his employment. The several more important occupations, therefore, must be considered separately as fixed occupations. The order of their consideration will be approximately that in which they appear in the process of making a specific article.

MOLD BOYS.

The duty of the mold boy, as has been seen, is to open and close the mold as required by the blower. This is done by means of a pair of projecting handles, the parts of the mold resting and sliding upon a flat surface. The physical strain of moving the handles is not great, except with very large molds, and to these the larger and stronger boys are usually assigned.

As the occupation is one which does not permit of much moving around, the posture of the body is of importance. In approximately half of the factories scheduled the mold is at such a height above the floor that the boy may stand or sit at will, and with little necessary bending in either position. In such cases seats are always provided and, although usually very crude, serve the purpose.

This arrangement, whereby the boy may change his posture from time to time, is the most desirable that can be devised without radically altering the method of the factory work. Such an arrangement, however, is usually due less to forethought of the boy's comfort than to the kind of furnace used. In the newer furnaces, whether tank or pot furnaces, the "working holes" are so placed that the "foot bench" is sufficiently high above the floor to render the mold on the edge of this bench at a convenient height for the mold boy to handle, whether he is seated or standing at his work.

In many of the older furnaces, particularly pot furnaces, however, the arrangement is different. As the working holes are nearer the ground the blower needs no high foot bench. He may, however, and sometimes does, step upon a box or shallow bench while he blows his ware. In either case the molds rest upon or very close to the floor. As a result the mold boy must either squat upon the ground in an awkward, cramped position, or, standing, must stoop constantly to his work. When the mold boy must thus sit with his legs doubled under him, or sitting on a crude chair or box stoop over almost to the floor to operate the molds, the occupation becomes one which continued for any great length of time undoubtedly tends to dwarf and deform a child.

In a few factories it is sought to obviate this objection by digging a pit in front of the mold. In this pit the mold boy may stand in a somewhat normal position, and if the pit is large enough he may use a stool. Such a system as this offers the boy a much more restful posture of the body than crouching upon the floor, but it is questionable whether the evil features of working in a hole in the ground do not more than counterbalance such good features as the pit method may possess.

Fortunately for the mold boy, however, most establishments either have a rule that those working in "boys' occupations" must alternate every half hour, or permit such alternating by mutual agreement, and very few mold boys are confined to these cramped positions for long. In some cases, however, when mold boys are lame, crippled, or incapacitated for the other kinds of work done by boys they remain at the molds all day. A later section, on interchange of occupations (p. 59), shows the proportion of bottle factories where rotation in employment by boys occurs.

All the conditions affecting the heat of the blow room can not be discussed here. The general subject will be treated in a separate section, which must be read for a survey of the subject in its entirety. The matter of heat as related to the mold boy's position is, however, of such importance that some of the points of the section referred to may be briefly anticipated.

In all establishments the heat is a particularly conspicuous factor in the mold boy's work. He must necessarily be close to the mold, and for speed of working the mold is placed near the furnace, directly in front of the working hole and some 3 feet below the level of the hole. As the mold tender works he faces the furnace, and his face and shoulders at least are in direct line with the radiated heat from the working hole. In addition to the furnace there are also certain subsidiary heat sources which add to the boy's discomfort. The mold itself, after a short using, becomes very hot and gives off considerable heat; the blower in lowering the hot lump of glass into the mold necessarily swings it close to the boy's face. In a few badly arranged factories, moreover, the "glory holes," at which the finishing work is done, are crowded close to the furnace and little space left between them and the mold boys. These are kept at high internal temperature and add considerably to the heat of the surrounding air.

As an offset to these heat sources the mold boy gets the advantage of the "wind" which is forced through the air pipe to play upon the molds to prevent them from getting too hot to work, as explained in a former section of the report. Sometimes the general heat of the furnace is such as to heat these pipes until the air coming through them is almost hot, but at other times they materially reduce the temperature under which the mold boy works.

At one factory in Illinois on a day and at an hour when the mercury registered 78° F., entirely outside the influence of the factory, a record was taken at three different molds, in three sections of the furnace room at a point level in each case with the mold boy's head. One registered 93°, another 95°, the third 101°. These variations arise from the fact that there is always a hot and a cooler side of a furnace, dependent upon which way the outside wind is blowing. At another plant, also in Illinois, when the outside temperature was 90°, the mold boy in one shop was working in a temperature of 113°; in another shop 116°. In a New York establishment, at an hour when the outside temperature was 78°, the mold boy at whose working place the test was made was working in a temperature of 105°. Four days afterwards in the same plant, when the outside temperature was 85°, the mold boy's place registered 104°, showing that outside temperature is not a definitely determining factor. These heat conditions, in the case of the mold boy, affect the face and arms particularly.

The degree of attention required of the mold boy can be best understood by the citation of output figures. When working on small ware, such as prescription bottles of one-half or one-fourth ounce capacity, the production of an average shop will be approximately 460 dozen, or 5,520 bottles in a day of nine hours, or 613 in an hour, a trifle over ten a minute. It should be noted, however, that the output per shop on such ware frequently runs higher than this. In a New Jersey factory one shop made an average of 506 dozen a day during the month of January, 1908; 503 dozen a day for the month of February; and 468 dozen in April.

It must also be understood that the establishment count includes only good ware, accepted and packed for shipment. The mold boy, as well as every other shopboy, has just as much work to perform on ware found to be defective by the inspector as on good ware. For instance, a particular shop that averaged 506 dozen good ware per day for 27 days in January, 1908, made an average of 523 dozen bottles that went through the leer, 17 dozen bottles per day being lost as bad ware or ware that could not pass inspection. In addition to this, moreover, is the ware that is spoiled between the mold boy and the leer, and of which no record whatever is kept. Estimating this latter loss at two dozen per day, 525 dozen, or 6,300 bottles, would be made daily on the average by the shop in question, in 510 minutes of actual working time, or at the rate of 12⅓ bottles per minute.

In considering the strain of such rapid work it is to be noted that for small ware the molds are light and easily worked by hand. In making larger ware, 8-ounce bottles for instance, where 250 dozen bottles (good ware) would be a fair day's work, the movements of the mold boy are not so rapid. On the other hand, however, the heat is greater with the larger ware because the molds become hotter and the radiation from the ball of molten glass on the end of the blower's pipe is proportionately greater.

Normally the mold boy has no weights to lift other than the individual articles as they are removed from the mold and placed on the adjoining stand. In a few factories making paste-mold ware, however, the mold tender is required to lift the mold bodily. This necessity arises from the fact that after each use the paste mold must be immersed in water. Commonly a mechanical contrivance worked by the blower's foot performs this service. But this method is not universal, and when boys are used at the work they must lift and dip heavy iron molds, weighing sometimes as much as 100 pounds.

With hand-blown beer bottles automatic treadle molds are generally used, and very occasionally they are used with other kinds of ware. The treadle mold is operated by the blower, opening and closing by a pressure of his foot upon a lever. Where this method is adopted the mold boy's work is limited to removing the bottles from the mold as it is opened by the blower, in which case he becomes a "take-out" rather than a mold boy. In such case, however, the resultant decrease in his work is usually counterbalanced by requiring him to attend two neighboring shops, containing, together, four molds; or it may be that the work of mold tending will be combined with that of snapping-up, and the one boy fills both occupations for his shop. In either case the use of the treadle mold radically changes the boy's work, and, on the whole, renders it more agreeable.

CLEANING-OFF BOYS.

The cleaning-off boy's position is by the side of the blower, and at a distance of some 3 to 4 feet from the furnace. Usually, however, he stands about midway between two working holes, and thus partially avoids the most intense heat. Even then, however, the temperature conditions, especially in a crowded shop, are very severe. Almost always he works with his back to the furnace.

Cleaning off consists in scraping off the collar or clot of excess glass that remains on the end of the pipe after each blowing. To do this the boy pulls or strikes the glass clot upon an iron rasp. This, although a simple operation, requires some little physical strength and skill, and the occupation is usually reserved for the older and more experienced boys.

It is customary for the cleaning-off boys to stand while at work, although in a few factories they use stools part of the time. In most shops, however, the lack of room, together with the nature of the work, prevents the use of seats. In either case there is no necessity or opportunity for walking.

The heat conditions of the cleaning-off boy would seem to be upon the whole rather better than those of the mold boy, although in some temperature readings the latter has an advantage. Taking the first Illinois furnace room referred to in the preceding description of the work of the mold boy with an outside temperature of 78°, three cleaning-off boys were found to be working in temperatures of 94°, 102°, and 104°, respectively, while the mold boys, as already stated, had working-place temperatures of 93°, 95°, and 100°. Probably more depends upon the direction of the wind than on the positions themselves. In one plant where the outside temperature was 90° the working place of the clean-off registered 105°, while the mold boy's place registered 113°. Another place, when the outside temperature was 92°, the clean-off was working in a temperature of 106°. In another plant, the temperature on the outside being 85°, the clean-off's place showed 106°, while in still another, with an outside temperature of 78°, the working place of the clean-off recorded 110°.

As the stems or blowers' pipes must be cleaned for each bottle, and one clean-off works for both blowers in a shop, the boy's speed rate would be determined by the output.

SNAPPING-UP BOYS.

The duty of the snapping-up boy, as earlier described, is to pick up the article as placed by the mold boy on the stand, place it in a long-handled holder, neck upward, carry it to the finisher's bench, rub the neck against an iron rasp in order to remove the greater portion of the excess "blow-over," and finally to insert the article in the "glory hole" or reheating furnace.

There is no time to rest between trips or to loiter on the way. Constant walking is necessary, the exact amount depending upon the distance of the glory hole from the mold boy's position. This distance varies from 5 to 10 feet. The shorter the distance the less is the walking required of the boy, but it is possible to make the distance too short for the boy's comfort. If it is too short the workers and the heating centers are crowded too closely, and the resultant heat and cramping more than outweigh the benefit of the shorter walking distance.

Not only is constant walking necessary, but also constant arm movement, some bending, and, in general, an incessant activity of the whole body. The weight to be carried depends upon the size of the ware being made. In no case, however, is the weight in itself sufficient to cause an excessive strain, except when very young boys are used with very large ware.

Into the work of the snapping-up boy there enters the hardship of looking into the bright, glaring light of the glory hole. In the handling of most articles the snapping-up boy stops in front of the glory hole long enough only to insert the holder in the hole and to see that it is properly placed so as to bring the article in the correct position above the flame. With some varieties of ware, however, he must manipulate the holder in the glory hole, revolving it and watching it while the glass is being reheated. The size of the glory hole varies greatly, and with all except the smaller holes the glare, as well as the heat, is very intense. The finishers also must look into the glory hole, and in many factories have provided for them pieces of blue glass to shield their eyes from the light. In only one plant, however, were similar contrivances provided for the snapping-up boys.

The snapping-up boy works in the heat of the furnace zone, i. e., his position is sufficiently near the furnace to share in its radiated heat. At one end of his walk he is in practically the same position as the mold boy and at the other he is brought close to the hot glory hole.

An attempt was made to get information as to the temperature under which the stick-up or snapping-up boy had to work. The difficulty was to decide at what places in his various movements the temperature readings should be taken. At the point where he picks up the ware from the mold boy he is working in practically the mold boy's temperature, and these records need not be repeated. The next point at which he stops is where he rubs off the excess glass from the top of the bottle neck, and the third is where he steps up to and in front of the glory hole. Temperature readings were therefore taken at both these latter points.

In a Pennsylvania establishment, where the temperature on the outside was 88° the temperature at the point where the snap-up rubs off the excess glass was 100°; in front of the glory hole it was 140°. In a New Jersey plant, with the temperature on the outside 88°, the first described position of the snap-up was 90° and in front of the glory hole 140°. In another plant in Pennsylvania, on a day when the outside temperature was 88°, but with the wind evidently unfavorable to the snap-up, the temperature in which he worked was for the first position 110°; for the second, 140°.

The speed rate of the snapping-up boy is fixed by the output of the shop, and in case of such small ware as one ounce and under he must work with great rapidity.

The sticking-up boy occupies in a tableware plant precisely the same position as the snapping-up boy in the bottle factory. Therefore no special description of the conditions of the sticking-up boy's work need be given.

CARRYING-IN BOYS.

The work of the carrying-in boy is substantially the same, whatever the class of ware his shop may be engaged in making. It is his duty to take the ware when the workers at the furnace have finished with it, carry it to the leer, and deposit it inside. This must be done with reasonable dispatch, as newly molded ware will spoil if left too long exposed to the outer air. As a result, the boy must make quick trips back and forth, each time carrying a limited number of articles.

The carrying-in boy uses in his work a long-handled paddle or shovel. Usually the paddles are of iron with asbestos covered bodies. A few factories, however, use wooden paddles with wooden handles. These have a short life, but they are cheap and, what is more important from the boy's standpoint, are much lighter than the iron paddles and are less rasping to the hands.

In beginning his work the boy places his paddle on or by the side of the stand on which the articles have been placed, and with a stick or pinchers lays the bottles flat upon the paddle. Then, with his load he walks to the annealing leer, holding always the paddle in a horizontal position. Coming to the leer, he inserts the head end of the paddle containing the bottles and, by a turn of the handle, slides off the bottles and arranges them in an upright and compact position upon the floor pan of the leer.

In the great majority of shops there is one carrying-in boy to each shop. When, however, the distance to be walked is unusually great or the ware is produced unusually rapidly, two boys are assigned to a shop. Sometimes, these conditions being reversed, one boy carries in for two shops. If the ware is large, such as pint bottles, only one or two are carried at a time. If, however, small ware, such as 4-ounce prescription bottles, is being made, as many as six to eight may be taken on each trip.

In depositing the ware in the leer, the boy usually stands at the leer opening only a few seconds, but during that time he experiences the full effects of the very intense heat; also if in depositing the ware he fails to stack it properly he may have to spend several more seconds retrieving his error.

The leer mouths vary in size and in the amount of heat emitted, but only two of the visited factories had made any serious effort to reduce the heat emission. In these exceptional factories each leer is supplied with a shutter or door. When the carrying-in boy reaches the leer with his load, the shutter is opened by a foot treadle and is closed immediately when the paddle is withdrawn. Under this method the carrying-in boy is still compelled to face the open leer mouth at the time he deposits his load, but as the leer is closed when not in use, the amount of heat escaping into the blow room is greatly reduced. From the employer's standpoint also the shutter system is a distinct economy, as with it there is a considerable saving in the fuel charge of the leer.

The two factories employing this shutter system are, however, so exceptional that their chief importance is to emphasize the general conservatism of the trade in introducing new methods—methods which may relieve the intensity of the boy's work at little, if any, expense to the manufacturer. Recently considerable attention has been directed toward the perfection of mechanical devices for carrying in, but at the time of this investigation few such devices were in actual use. In a number of factories men were being rapidly substituted for boys, but nearly everywhere the work was being done by hand and in much the same manner as it had always been done. Specific descriptions of the physical features of this occupation may be limited, therefore, to the way in which the work is performed in the vast majority of establishments.

The heat conditions under which the carrying-in boy works is a difficult matter to determine. At either end of his line—when he takes up the ware and when he deposits it in the leer—he is working in high temperatures at all times of the year. Between these—on his way from the shop to the leer—he may be in very comfortable temperature if the wind is blowing across his path, or it may be hot if the wind is blowing either from the furnace or from the leer. In winter his path may be through a very cold zone between two points of extreme heat.

Temperature readings were made in a number of establishments at the point where the carry-in picks up the ware and in front of the leers where he stands while depositing the ware in the leer. In a New York plant, when the outside temperature was 85°, the carry-in boy picked up his ware at a point which registered 102° and deposited it standing in a place which registered 106°. In an Illinois plant these figures were 98° and 125°, respectively, with an outside temperature of 90°. Another factory showed these figures to be 100° and 122°, respectively, with an outside registry of 92°.

The carry-in has some strain upon his eyes, for he must look into the open mouth of the leer or annealing furnace long enough to place his ware in proper position, and while this is not comparable with the glare of the glory hole, into which the stick-up or snap-up boy looks, it is an element of discomfort and a possible source of injury to the eyes.

The speed rate of work for the carry-in varies not only with the kind of ware being made by his shop on a given day, but also with the distance that separates the working place of that shop from the leer. In the case of the mold-boy and the snap-up the amount of work done can be measured with exactness. If his shop makes 3,600 four-ounce bottles, the mold-boy must open and shut a mold this number of times and must pick this number of bottles out of the mold and put them on a stand for the snap-up, who in turn must carry to the glory hole 3,600 bottles all within the net working time of 510 minutes. The carrying-in boy would handle the same number of bottles in the same time, but the amount of real energy required to do so would depend not only upon the number of bottles carried in at a time, but also upon the distance from the shop to the leer.

The distance from the shop to the leer differs for each shop in the furnace room. Even if more than one shop or team of workmen are working glass out of the same working hole of a furnace, there must be some difference in the distances of such shops to the leers and when one shop only is working at one working hole the difference in these distances will be considerable.

In a majority of the establishments visited the extreme distance from shop to leer was approximately 45 feet, the shortest distance 12 feet, the average, 25 feet. Small ware, such as bottles under 2-ounce capacity, would be made in the shops nearest the leer, large ware being made in the farther shops. If the carrying-in boy for the 4-ounce shop referred to above as making 3,600 bottles, was required to carry the average distance and handled 6 bottles at a time, which is what he would usually do on ware of this size, he would make 600 trips in 510 minutes and thus cover a total of 5.68 miles per day. This is approximately the normal walking done by carrying-in boys as shown by the several reports upon this point. If for any reason 4-ounce bottles had to be made by the shop farthest from the leer in the plant under consideration, i. e., 45 feet, the distance covered in carrying the ware would be increased to 10.23 miles. If in any case the total distance exceeded this, two carrying-in boys would be put on the shop. So, too, with very small ware, 1-ounce or under, of which as high as 6,300 pieces would be made in a day, two carrying-in boys would be put on a shop if it was located as much as 30 or 40 feet from the leer. On the other hand, if large-sized bottles were being produced by shops near the leer one "carry-in" would attend two shops.

While the figures of distance from shop to leer given above are the usual ones, no two furnaces are exactly alike in this respect. One case was found where the maximum distance was 100 feet, the minimum 10 feet, the average 30; another where the maximum was 80 feet, minimum 10, and average 30; and a third where the maximum was 75 feet, the minimum 10, the average 45.

In a few factories even the nearest shops are located at a considerable distance from the leers, as in one case where the maximum was the usual 45 feet, but the minimum was 30 feet and the average 35. The output report was 3,024 one-half pint bottles per shop; 2,160 pints, 1,944 quart beers. There was one carrying-in boy to a shop; 5 half-pint bottles, 4 one-pint bottles, and 3-quart bottles being carried in at a time. In handling pint bottles, therefore, with an output of 2,160, carrying four at a time, the carrying boy would make 540 trips, and walk 9.20 miles if carrying the maximum distance between shop and leer; 6.14 miles if carrying from the nearest shop, and 7.16 miles if carrying 35 feet to the average shop.

In some cases the nearest shops were not more than 5 feet from the leer; and yet the carrying-in boy on these may have been working really harder than those going a greater distance. One field agent reported that the most rapid carry-in work he had ever seen was in a shop where one-fourth-ounce bottles were being made and where the carrying-in boy had only to turn around and thrust his paddle in the leer.

It will thus be seen that it is impossible to state accurately in figures the amount of physical energy required in this occupation as it will vary with each shop, and will vary from day to day with each person according to the size of ware made by the shop. It is safe to say, however, that usually the daily distance traveled by a carrying-in boy does not much exceed 1 mile an hour.

The weight carried is insignificant. A 4-ounce prescription bottle, for instance, weighs 3½ to 4 ounces; a pint export beer bottle weighs 16 ounces; a quart export beer bottle weighs 22 to 32 ounces. From this it will be seen that the weight of bottles carried in at a time ranges from 2 to 6 pounds.

MACHINE BOYS.

The work of the machine boy on the blowing or pressing machine requires on the whole larger growth and better physical development than does the work of the boys' occupations previously mentioned. One reason for this is that the machines are commonly of such a height that small boys are unable to do the work conveniently. In the second place, the machine requires close attention and considerable endurance. As a result the machine boys are, on the average, considerably older and better developed than are the other shop boys.

Machine work requires constant attention and continuous application, and results in considerable nervous tension. A machine running in good order moves with almost mathematical precision, and at a speed that allows no respite. Most machines, however, do not run with perfect precision. Stoppages, due to the clogging of a mold or to a poor run of glass, are not infrequent, and such stoppages offer a relief, if not an absolute rest to the workers.

No lifting is required other than the weight of the individual articles, but there is a hand lever and sometimes a foot lever to be operated. Outside of this the muscular exertion necessary consists in opening and shutting the molds, or in sliding and pulling them from one position to another.

The machine boy, next to the mold boy, commonly occupies the warmest position of any of the boys. The machine is placed very close to the furnace, in order that the gatherer in collecting the glass on his pipe and depositing it in the mold may have to change his position as little as possible. As a result the machine boys are usually only from 6 to 8 feet from the working hole of the furnace. Furthermore, the iron of the machine, after a short period of use, becomes very hot and itself becomes an important source of heat.

An alleviating feature of the heat of the machine boy's position is the cold-air pipe with which every blowing machine is supplied. This air pipe is directed so as to play upon the mold, and keep it from becoming overheated, but incidentally, it serves to temper the heat of the boy's position. It is to be noted, however, that in a few factories the air thus supplied is by no means cool air, the piping being so badly placed that the air becomes heated on its journey.

The work on the automatic machine need not be discussed here, as there are almost no boys under 16 engaged on this machine. The character of the work, moreover, is similar in most respects to that of the work on the blowing machine.

MINOR OCCUPATIONS.

The five occupations just described are by far the most important of the boys' occupations, including as they do, some 90 per cent of the shop boys scheduled. The remaining 10 per cent are scattered among many secondary occupations, sufficiently differentiated among themselves to have different trade names, but each numerically small, and presenting few features of interest not possessed by some one or more of the five primary occupations. Because of this only a few of these minor occupations need to be touched upon.

Carrying over is a somewhat general term applied to the boy who carries such articles as pressed pitchers from the press to the finisher who performs further operations upon the partially made articles.

Thus the mouth, or lip, of a pitcher is not formed on the article at the time of pressing, and usually the handle is also put on afterwards. This necessitates considerable carrying of the article from one person to another before it is completed, and this is the work of the "carrying over" boy. Constant walking is necessary, but otherwise the work possesses no special features.

The "ball boy"—also known as the "punty boy," "gathering balls," "holding balls," etc.—is used only on very large ware, where more glass is required to produce a single article than can be "gathered" on the stem end at one time; or on ware where two or more kinds of glass are used in the production of the same article.

To make this clear, let a simple illustration be taken. Suppose one dips a fork into a jar of thick treacle, or molasses, he can by turning the fork around collect a small mass or "gather" of adhering treacle and lift it out of the jar. The amount that will so adhere is small, and the fork must be constantly turned around or the treacle will sag and finally drip off the fork. Now glass is "gathered" at the "butt" end of a blower's pipe in precisely the same way, and when not enough glass will adhere to the pipe at once to make the desired article, the pipe is withdrawn with as much of a "gather" as will adhere; it must then be kept turning so that this glass will not sag and drop off, but will be kept perfectly round in shape till it becomes rigid enough to hold its own weight and shape. The pipe can then be reinserted into the molten glass and this rigid "ball" of glass forms a new "butt" for the blower's pipe, a larger surface for the molten glass to adhere to. This can be repeated as many times as is necessary to secure the required amount of glass. The province of the "ball boy" is to roll or turn the blower's pipe, which is placed upon a grooved rest, so that the glass will not sag while it is becoming rigid enough to form the base of a new "gather."

The function of the ball boy is the same where two or more varieties of glass enter into the same article. Take, for instance, a "ruby-glass" electric or gas light globe. "Ruby" glass can only be produced by putting a certain amount of gold in the mix itself (although certain imitations of ruby may be produced by fusing a liquid paint containing gold after the article is made.) Partly because of the expense of ruby glass melt, and partly for physical reasons, the real ruby glass is used simply as a thin veneer either on the inside or outside of the globe; and sometimes both outside and inside, the middle layer being ordinary glass. In this case a "gather" of ruby glass is made, and the blower's pipe handed to the ball boy, who keeps it turning until the "ball" is formed and stiffens; then there is a "gather" of ordinary glass made on top of this; which, when the whole is blown, makes a heavy electric-light globe, the inside of which has a thin veneer of ruby glass sufficient, however, to color red all the rays of light which may pass through it. This is called "flashing" and in practically all "flashed" work a ball-boy is used.

The work of the ball boy is not hard; he usually is given a position in the furnace room where he is not subject to severe heat conditions; and the speed rate, from the nature of the work, can not be very considerable.

The "bit boy," as has been described, helps the stem and handle maker by gathering the necessary thread of glass from the furnace. The position is one of some responsibility, and approaches in its severity that of the skilled gatherer.

INTERCHANGE OF OCCUPATIONS.

It has already been pointed out that a shop boy need not be employed regularly at any one occupation. Not only may his occupation be changed from time to time to suit the requirements of the shop arrangement, but with certain occupations it is a more or less general custom to permit or even to enforce such interchange several times a day, in some cases as frequently as every fifteen minutes, in order to reduce the physical strain of the work. As has been shown in the preceding discussion, each of the occupations imposes a different kind of strain, and the interchange of occupations acts as a definite relief. Thus, the mold boy has a cramped stationary position of great heat; the clean-off stands but may not walk; the work of the snap-up not only requires steady leg movement, but it also requires quick and constant arm movement; the carry-in is required to walk constantly and sometimes cover long distances, but he has no special nervous strain imposed upon him.

To continue for several hours at any one of these occupations intensifies the muscular and mental tension. This is generally recognized both by the boys themselves and by the employers. Frequent interchange of occupations is almost always possible, and in the majority of furnace rooms is regularly practiced as a trade custom. In some factories this interchange is enforced by the management, the boys of all or of certain selected occupations being required to exchange places at certain specific periods, quarter hour, half hour, etc. At other factories the management does not enforce the exchange, but the workers may arrange among themselves to do so.

The occupations of mold boy and snap-up are the ones most commonly affected by such interchange, and they are the ones where it is most desirable. The clean-off boy also frequently joins in the exchange, though not always, and never if he is of the negro race. The clean-off boy's position is on the foot bench beside the blower, and although no rule of the union justifies it there is a tacit understanding among blowers, whether union or nonunion, that a Negro is not to be permitted to work on the foot bench.

The glass bottle blowers' union is affiliated with the American Federation of Labor, and hence forbidden to draw the color line in its requirements for admission to membership. Nevertheless, there are no negro members; for, as one blower said, "It doesn't require constitutional provision to keep them out. Each local union in voting for or against admission of an applicant can attend to that." It would seem that the blowers go even further, and will not permit a negro boy to work at the occupation of cleaning-off, which would require him to be on the foot bench close to the blower.

The carry-in boy exchanges less frequently than do the other boys, because of the fact that in many factories this occupation is filled by older men, often immigrants, who do not fit readily into the rest of the shop methods.

The extent and character of this interchange of occupations is shown by the following statements regarding the 169 furnace rooms investigated:

In 24 union and 5 nonunion prescription-bottle factories more or less complete interchange was required by the respective managements. Of the 24 union plants 3 require the mold boy and the snap-up to exchange every fifteen minutes; 1 requires such exchange every twenty minutes; 1 requires the mold boy to exchange with the snap-up and carry-in alternately every half hour, and in 1 of these he may exchange with the clean-off if both are white. Eight union establishments require the mold boy to exchange every half hour with the snap-up, and 1 of these includes the exchange with clean-off if both are white. Eight require exchange between mold boy and snap-up, but do not specify the periodicity of the exchange. One establishment using machines requires machine boy to exchange with carry-in at regular intervals.

Of the 5 nonunion prescription ware establishments in which exchange of boys' work was required by the rules of the establishment, 1 has a general requirement that "shop boys" should exchange every fifteen minutes, 1 required the mold boy or taking-out boy to exchange with the snap-up every twenty minutes, 1 every thirty minutes, and 1 other included the cleaning-off boy in this exchange when the boys concerned are all white. One required exchange of work without definite rules as to frequency.

In 13 union and 1 nonunion prescription-bottle establishments the interchange was optional with the boys, but encouraged and treated as a matter of course by the employers and the blowers. In 11 of the union plants and in the 1 nonunion plant the periodicity of the changes is not stated, and no attempt is made to regulate it; that is to say, the exchange being optional with the boys, the matter is entirely controlled by the boys themselves. In 1 of these plants the mold boy and snap-up exchange every half hour. In 2 of these establishments the mold boy exchanges work with the snap-up and the carry-in alternately every half hour, and may exchange with the clean-off if both are white.

Of beer-bottle plants, 13 union and 1 nonunion establishments definitely require exchange of work. In 1 union plant it is optional with the boys themselves. The nonunion plant requires the take-out to exchange with the snap-up every thirty minutes, and this regulation obtains in 7 union factories. One union plant requires such exchange every fifteen minutes, and 3 require such exchange, but do not specify frequency.

In tableware and shade factories interchange of occupations is less frequent and is less necessary. In this branch of the work there is either no mold boy, or if so his position is not the cramped, stooping one of the mold boy in a bottle shop. Also the speed and nervous strain of the work in tableware and shade making are somewhat less than in that of bottle making. The work being more open, the strain of the several boys' occupations being not so dissimilar, there is less pressing necessity for interchange of occupations for the sake of physical relief. As a result interchange is less frequently compulsory in the tableware-shade division of the industry than in the bottle branch, but almost always the boys are permitted to make exchange if they desire, and they often avail themselves of the permission.

The interchange of occupations, at least those imposing the greatest strain, such as mold holding and snapping up in a bottle factory, is a matter of such importance that it should be required and regulated by the factory itself. If left to the option of the boys, it is less likely to be at sufficiently short intervals, and at times may not take place at all. Thus, as not infrequently occurs, an occupation in a given furnace room may be so undesirable, through local conditions, that the other boys are unwilling to exchange with the one holding the undesirable place, unless the exchange is obligatory. Such a situation as this, however, is one in which interchange is most necessary. In one plant, where the clean-off's position was unusually severe, the other boys refused to change with him until forced to do so.

The occupation of mold boy in a bottle shop, at least, is one that no child or youth ought to be permitted, much less required, to engage in without a regular interchange of occupation at short intervals. The hours of actual work in a union bottle establishment are 50¼ per week and in nonunion plants the hours are sometimes as much as 53 per week. To sit in the stooped, cramped position of the mold boy the whole of this working time would certainly tend to deform any growing boy. And the matter of exchange of work with other occupations ought not to be left optional with others; it should be his of right, included in the regulations of the industry as promulgated by the rules of the establishments. The mold boy should have the right of exchange of work at least every half hour, and this right should not be restricted by either the "option" or the color of the other boy helpers in the shop or in the factory.

At times it may happen that the boy employed at a particular occupation may be physically incapacitated from engaging in other occupations, under which circumstances interchange is, of course, impossible. Thus, in an Illinois establishment there were employed two carrying-in boys (in this case they were 16 years of age), each of whom had lost an arm as a result of a railroad accident. By means of hooks provided in place of the lost arms they were able to manipulate the carrying-in paddles and were efficient workers. Naturally, however, a one-armed man could not exchange places with a mold boy or a snap-up or a clean-off.

In another Illinois plant there was found a mold boy with one leg. This boy obviously could not exchange work with the carrying-in boy, nor, in fact, with anyone else, unless it were the clean-off, and even this exchange would be inconvenient. The injury was not received in the establishment, nor indeed in the glass industry, the boy having drifted into the position of mold boy because his misfortune limited his opportunities of employment in other industries.

CHAPTER III.

WORKING CONDITIONS IN THE FURNACE ROOM.

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DUST AND FUMES.

There are three possible sources of dust and fumes in the furnace room. These are: First, the "blow-over;" second, gas and smoke from the gas producers; and, third, dust from the "batch" or "mix" when it is being placed in the furnace for melting. It is to be repeated that this statement refers solely to the furnace room, and not to the finishing or decorating departments, in which acid, paints, enamels, and other dust and fume sources are employed. These latter sources will be later considered in that part of the report dealing with women in the finishing department.

"Blow-over" is the name given to those gossamer-like flakes of filmy glass that are usually found floating in the air of a bottle house. It occurs only where articles are blown with iron molds by human breath. That is to say, it will not be found in paste-mold ware, in pressed tableware, or in machine-made work. As has been previously shown, the bottle blower, after marvering the glass on the end of the blower's pipe and starting the formation of the bottle or other article by swinging and slightly blowing into the pipe, steps to the mold and inserts the stem with the partially formed glass ball upon it into the mold, which is immediately closed by the mold boy. He then blows into the pipe until the internal air pressure has pressed the glass into a uniform contact in all directions with the mold, from which the shape of the bottle or article is derived. It is now necessary only to detach the pipe from the form in the mold. To do this without injury to the bottle in the mold it is clear that the glass above the top of the mold and between that and the butt of the pipe must be made thin enough to be broken without danger to the unfinished neck of the newly made bottle. This can be done by blowing just enough to thin this bubble of glass so that it can be broken by a twist, jar, or pull of the pipe, but not so thin but that the pieces of glass so formed will fall to the floor by their size and weight. It is, however, perhaps quicker and easier to blow hard enough to inflate and burst this portion of the glass by internal air pressure. When this is done the bubble explodes with a popping noise and the walls of the bubble fly into the air, often into the mold boy's face, and the light particles of glass float in the air currents of the room. This is "blow-over." With several shops making bottles of various sizes, and with a new supply of blow-over being added to the air with the blowing of each bottle, the air may soon become badly affected. In some factories at times the air is so full of this floating glass that the hair is whitened by merely passing through the room. It sticks to the perspiration on the face and arms of the boys and men and becomes a source of considerable irritation. Getting into the eyes, it becomes especially troublesome.

Of 75 establishments making druggist prescription bottles and kindred ware the schedules from 53 reported on the matter of "blow-over." Of these, 2 report that the blow-over was of minimum amount, 6 report that it was extremely bad, while 42 report it present in greater or less degree. Of 16 beer-bottle establishments, 15 report on the subject; 2 of these report practically no blow-over; 3 report a minimum quantity; 2 report it as very bad, while 8 report the presence of blow-over in varying quantities.

Blowers differ greatly in the amount of blow-over produced when working, and many of them produce very little. The actual amount depends upon the carefulness of the blower and upon the speed of his working. It is almost always worse when very small bottles are being made, because of the very rapidity of the work; and with, say, bottles of 1-ounce size or under it may be that it is impossible to work rapidly without an unpleasant amount of blow-over.

Generally speaking, blow-over is worse in the plants of the Middle West than in the Atlantic Coast States, due in part to the greater speed rate of blowers. The establishments in which the worst blow-over conditions were found were located 3 in Illinois, 2 in Indiana, 1 in a southern State.

In a report covering an eastern establishment the agent notes: "The manager here seemed to be quite frank in discussing the effects of the 'blow-over.' In answer to inquiries about it he admitted they had some trouble with it. 'It gets into the eyes and is very painful until removed. We have known of no serious results from it.'"

Another report, in regard to a plant in a southern State, notes: "The superintendent said he thought there might be some means devised to carry off most of the blow-over; to suck it up, and then carry it off. He said it was disagreeable, if not harmful, in that it settled on the boys' necks and arms when they were hot and perspiring. It falls on the snap-ups and carry-ins more than on anyone else."

The air from the air tubes that plays on the molds, to keep them from getting too hot, has a tendency to drive the blow-over away from the mold boy immediately; but, on the other hand, when it is first produced, i. e., when the glass bubble is broken, it bursts practically in the mold boy's face.

A report concerning a beer-bottle establishment says: "In the blowing room there is much fine, shredded glass in the air known as 'blow-over.' It floats first from the molds when the bottle is made; then it settles on the floor. The spare boy sweeps the floor, gathering up all the waste glass, and dumps it in a heap. When he dumps it, as when he sweeps, these fine particles of glass again fill the air. The foreman stated that employees often got it in their eyes, though he had never known one to lose his eyesight as a result."

In some factories precautions have been taken to overcome the evil. One report from Pennsylvania states: "The flakes and glass dust from the blow-over were not very prominent in this factory. They have exhaust fans which, in addition to the forced draft from the air tubes, drive most of it away from the workers."

In an Ohio establishment "the agent was told by the foreman of the hand-blown shops that he had done everything in his power to discourage the blowers from making a great amount of blow-over, as he considered it unnecessary and possibly injurious."

Another foreman stated that he would discharge any blower who persistently produced an excessive amount of blow-over, as he knew "there was no sense in it."

For the most part, foremen and managers pay no attention to the matter and are inclined to laugh at it as possessing no importance whatever. Others recognize excessive blow-over as at least an unnecessary nuisance in a furnace room and endeavor to prevent it. Sometimes the blow-over dust gets in the eyes and causes annoyance and pain, though no serious trouble from this source was reported. The presence of the dust in the factory is certainly highly annoying to the workers, especially the boys, and is the cause of much temporary skin and eye irritation. Just how serious the effect of the blow-over is it is difficult to determine. It has long been recognized by the medical profession that the inhalation of irritating dust predisposes to diseases of the respiratory passages, and it is known that its presence in considerable quantities in workrooms is always accompanied by a high death rate, especially from consumption. That the presence of the blow-over in any considerable quantity is not necessary is evident from the fact that in several furnace rooms it was so nearly absent as to be of no possible danger or even of serious inconvenience.

As has been pointed out, the great majority of glass factories used natural gas or oil as fuel, but there was a considerable number whose location required the use of artificial gas, and when this was the case it was the custom for the factory to have its own producing plant. The gas producers when placed in the furnace building or very close to it may be the source of serious contamination of the air of the blow room. In those of the visited factories which most offended upon this point it was found that when the wind blew from the producers toward the furnace room the air of the whole room became filled with gas and smoke almost to the point of suffocation.

Such conditions were reported to exist in only seven establishments, but as the report on each factory was necessarily based upon a limited period of observation this number is simply a minimum. As long as the producers are badly located there are certain to be times when the gas and smoke will be blown into the furnace room, and in only two of the visited factories in which producers were used were such producers located at a sufficient distance from the furnace room and sufficiently screened and guarded to insure the furnace room being free from gas and smoke under all normal conditions.

The glass furnace itself rarely, if ever, discharges fumes to a harmful extent, the draft of the furnace chimney being sufficient to carry off such impurities. Glory holes, however, are not often provided with exhaust funnels, and leers are rarely so provided. As a result the fumes arising from improper combustion or leakages are thrown out into the room. Usually the amount of fumes thus ejected is not sufficient to cause any noticeable inconvenience, but there are a few factories where, either through bad construction or carelessness, the escape of gas from the leers and glory holes is nauseous even to the experienced worker.

The final possible source of air contamination in the furnace room is the "batch filling." When it so happens that pots are being filled for melting while workmen are blowing glass from other pots in the same furnace or same furnace room, the dust from the mix as it is shoveled into the pots becomes very irritating, containing, as it does, pulverized soda ash, lime, salt, and generally arsenic also in small amounts. In case of the better grades of glass the "mix" also contains lead in the form of pulverized litharge in considerable quantities, ranging from 20 to as high as 40 per cent of the weight of the whole. It should be said, however, that no superintendent has this filling-in done while blowers are at work if he can help it, and that instances of its being done at such times were found only rarely.

HEAT CONDITIONS OF THE FURNACE ROOM.

The principal direct sources of heat in the blowing room of a glass factory are the furnace, the leers, the reheating furnaces ("glory holes"), and the portions of hot glass gathered on the blowers' pipe. The indirect sources are the heated molds, presses, and other machines. In some badly arranged plants the gas producers are added to this list, but this results merely from bad arrangement and is not inherent in the nature of the industry.

A furnace, either of the tank or pot type, is essential in every glass-producing establishment. Leers are necessary in practically all. Only two plants were investigated that did not have them, these plants making only electric-light bulbs, in which the glass is so thin that annealing is unimportant. Off-hand chimneys are not annealed, because they are produced more slowly and under such conditions of open air as to enable the glass to cool evenly while it is being shaped. Very few establishments, however, make only such articles as these. In like manner glory holes, or their equivalent under some other name, are a necessity in nearly all glass factories.

The temperature inside of the furnace itself must always be that required either to fuse the ingredients of which glass is made, or, being fused, to hold the glass in a molten workable condition. While the temperature required to fuse the mix may vary several hundred degrees, according to the character of the ingredients, the lowest required temperature is of a very high degree. For instance, if a large amount of the mix, say 50 or 60 per cent, consists of "cullet" (old broken glass), a melt may be secured at, say, 2,200° F.; and less heat is required if lead is used as a flux instead of lime. Again, it requires very much more heat to melt the mix in covered pots than in open ones; in large tanks than in small ones. The extremes of variation would probably be from 2,000° in open-pot furnaces with a favorable mix to 3,000° in the melting end of a large tank furnace.

The generally accepted figures of the heat within a furnace during the "fusing" is 2,507° F. between the pots and 2,390° F. in the metal itself. These temperatures are reduced when the holes are opened for working to a standard of 1,913°, although glass is commonly worked at a temperature of a hundred degrees less than this figure.

With such temperatures a furnace would necessarily radiate a considerable amount of heat even if it could be kept closed. This, however, is not possible. In a pot furnace alternate pots must be open and access must be had directly to the glass in them through the wall of the furnace. Its form, moreover, is circular, the men working entirely around it. Its heat therefore is radiated into the room in all directions and from its entire superficial area.

A tank furnace is an oblong box with a semicircular end protruding into the blow room. The mix is loaded into the rear end of the box, where it is melted and flows into the other, or working end, which is kept at a much lower temperature, theoretically 1,913°. Floating "boots" or "rings" are anchored in the molten metal around the inside of the working end of the tank to hold the impurities back. The blower gathers the glass from within this ring, to which he has access through the working holes in the furnace wall.

Thus, whatever the type of furnace there must be in its walls a number of holes leading directly to the molten "metal" and to the internal furnace heat. And these holes can not be covered, or shut off by doors, flaps, or any device which would keep the heat within while the working hole is not actually in use, because only glass enough to produce one article can be gathered at a time and the rapidity with which these articles are produced renders impracticable any door or shutter system. Thus the great heat generated in the furnace escapes into the workroom not only by a secondary radiation from the walls of the furnace, but to a much greater degree by direct radiation through the working holes. The heat which forces itself through each of these working holes spreads at an angle depending somewhat on the size of the hole and tends to be dissipated as a distinct radiation at a distance of some 15 feet. In any case, the area heated is fairly well defined, and between the working holes there is an air space not directly affected.

The heat which seems to pour forth from the working hole is from direct radiation entirely and not from an expulsion of heated air. The draft of the furnace chimney is sufficient to prevent this, and to cause the air current through the working hole to be inward. The blower or gatherer in collecting the preliminary ball of glass on his pipe must stand directly in front of the hole and thus bear the full force of the heat upon his hands and upon the upper portion of his body. Having gathered the glass, however, he usually steps to one side, out of the direct line of heat, while he is preparing the glass for the mold. The mold is normally placed directly in front of and somewhat below the level of the hole and at a distance of 6 to 10 feet. The mold boy, standing or sitting in front of the mold, receives the glare and heat directly upon his face.

The position of the cleaning-off boy is nearer the furnace than is that of the mold tender, but usually he is able to stand more or less between two working holes and thus avoid the areas of direct heat.

If blowing or press machines are used, they are located close to the furnace, as close or closer than the hand molds would be. The temperature under which the boys on the machine work is, moreover, somewhat greater than is that of the mold tender, as the machine boys are more on a level with the working holes and as the iron machines absorb and radiate a great amount of heat.

The heat of the furnace, combined with the heat radiated by the hot molds, hot machines, and hot-gathered glass, form as it were, a heat zone completely surrounding the working part of the furnace and distintly appreciable while work is in progress. The boys of the three occupations above mentioned—the mold boy, the cleaning-off boy, and the machine boy—are located more or less permanently within this zone. Such other boys as may be employed work at least a portion of their time outside this zone, and the conditions of heat under which they work are determined not only by the furnace, but also by the other heat sources, such as the glory holes and the leers.

The glory hole (using the term to include also the "warming-in furnace" of the tableware factory) is, like the melting furnace although in lesser degree, an extremely important heat source. The glory hole, as has been described, is a reheating furnace at which an article is resoftened when it has become too rigid for manipulation before all the necessary processes have been completed.

The heat generated within a glory hole is usually sufficient to maintain a constant temperature of 2,200° F. The radiation is both direct, through the hole in which the article is inserted, and secondary through the walls whether they are of brick or of iron.

When glory holes are built of brick and are stationary they may be anywhere from 5 to 20 feet from the working place of any given shop. Where the movable iron type is used the distance is usually from 10 to 12 feet. The amount of direct radiation from the movable glory holes is less than from the others because the holes are usually smaller and fewer.

The snap-up boy in a bottle house, like the warming-in boy in a tableware plant, carries the ware from the mold and inserts it in the glory hole. At both ends of this journey he encounters very high temperatures, but the intermediate space is much cooler. The exact temperature of his entire working space depends upon the degree in which the shop space is crowded (i. e., the closeness of the working hole of the furnace used by his shop to the glory hole) and also, from day to day, upon the direction of the wind whether it blows across his path or from one or another of the principal sources of heat.

The remaining principal source of heat in the blow room is the leer. As stated in an early section of this report, the leer is a long box kiln with revolving floor, into which huge iron pans are fitted for holding the bottles or other ware. At the mouth or intake end the internal temperature ranges from 800° to 1,200° F., according to the character of the ware being made. Here the walls and the open mouths are the sources of indirect and direct radiation as is the case with the furnace. In only two establishments were doors provided for the leer mouths. The carrying-in boys who take the ware from the finisher, who sits near the glory hole and deposit it in the leer, are like the snapping-up boys subject to severe heat conditions at either end of their journey.

Examining in still further detail the heat conditions of the furnace room there are found several off-setting features and some that are seemingly contradictory.

In the first place, it is to be noted that the pipes that supply air under pressure to the molds to prevent them from getting too hot serve an important incidental purpose in fanning and thus helping to cool the mold boys. Until the introduction of this air-pipe system, the molds would become so hot from the molten glass being constantly blown in them, that the glass would stick to the iron. This was met in three ways—first, by a speed rate which would not overheat the molds; second, by waiting for the molds to cool off when they became too hot; and, third, by immersing the mold in water to hasten the cooling. In 1878 a "fan" device was invented by means of which air was pumped into tubes at the top of the building and led to within a few inches of each mold. This "wind," as it is termed, plays constantly upon the mold and keeps its temperature down below the point where the glass would adhere to iron. The mold boy's place is in the line of this "wind." Sometimes the temperature at a level with the mold boy's head is lower than it is on the street outside, though this is true in exceptional cases only. All the employees of a shop doubtless derive some benefit from the "wind."

A second point to be noted in considering temperature conditions in a glass factory is the fact that there is always a hot and a cool side to the furnace room. This depends upon the direction of the wind meaning here the outside atmospheric currents, not the "wind" of glass-room phraseology, which refers to that which comes from the air pipes. The building walls being constructed so as to be thrown almost entirely open in summer, the air currents blow through the building almost as freely as they blow in the open. It is evident, therefore, that the shops on the windward side of a furnace will be cooler than those on the leeward side, unless, unfortunately, the leers are also on the windward side and between the shop and the building wall, in which case the heat of the leers, blown directly into the faces of the workers on this side of the furnace, renders their position worse than it would otherwise be.

Bearing in mind these two general facts, and the further fact that both the snap-up and the carry-in boy work for a few seconds only in the extreme temperature found at either end of their journey, some general idea of the heat conditions may be gathered from thermometer readings at various points in a number of furnace rooms. The thermometers used were special tubes guaranteed to register within a minute's exposure at least. To obviate any possible mistake, however, five-minute exposures were made in every case.

The detailed readings regarding two important plants may be given in full, the facts for the other establishments examined being presented only in summary form.

FACTORY NO. 1.

This is a pot furnace factory, with a full capacity of 12 pots, each holding 1½ tons of molten glass. Temperature readings taken June 12, at 3.35 p. m., when the temperature outside of the factory was 78°.

The readings in one shop at a distance of 2 feet in front of the working hole (i. e. where the blower or gatherer stands to gather the glass), on the windward side, where the wind was blowing the heat back toward the furnace, and where there were two auxiliary air pipes, showed a temperature of 101°. When the sheet-iron shield or "pan," which in a manner protect the blowers from the direct radiation was removed, the temperature rose almost immediately from 101° to 125°. Twenty years ago these protecting shields were not in general use.

On a second pot, in a part of the furnace room where the breeze was blowing across, the temperature was 112°. On the leeward side of the furnace, where heat was blown from the furnace toward the workers the reading showed 132°. In this case the pot was full, so that the blower could stand back at a considerable distance when making his "gather,'' a thing he could not do when the pot was well "worked out," for then he would have to stand up closer to the pot and reach in further and deeper for the glass.

The clean-off boy stands on the foot bench by the blower, but between the working holes of the furnace, and is thus out of the line of direct radiation of heat from the working hole. In the above plant the temperature at the point where the clean-off stood for the shop on the windward side of the furnace was 94°, at the shop where the breeze blew across 102°, and on the leeward side of the furnace 104°.

The differences in temperature for the mold boy may be affected by other things than the direction of the breeze. The molten "gather" on the end of the blowers' pipe, for instance, is an additional heat factor, whose importance depends upon the size of the "gather." In spite of these disturbing factors, however, there is considerable value in the temperature readings taken at the position of the mold boy's shoulders. These readings show the following temperatures: On the windward side of the furnace 93°, with the wind blowing across the shop 95°, on the leeward side of the furnace 100°.

The establishment now being considered used portable glory holes, and considerable pains were taken to get as accurate an idea as possible of the resultant heat conditions. The point chosen was where the snap-up stops to rub the excess glass or blow-over off the neck of the bottle before inserting it in the glory hole. It was found, however, that the gas flame would vary so much with the draft that it was almost impossible to get satisfactory readings. The mercury would "jump" 5° in a half minute with the changing intensity of the gas flame in the glory hole. The plan adopted, therefore, was to take three separate readings on three glory holes, one on the windward side, one where the breeze blew across the factory, and one on the leeward side. That is, nine readings were made, and these averaged for each glory hole. The results are as follows: Glory hole No. 1, on windward side of furnace, 100°, 105°, 103°, average 102.6°; glory hole No. 2, with breeze blowing across, 108°, 112°, 111°, average 110.3°; glory hole No. 3, on leeward side of furnace, 113°, 118°, 120°, average 117°. The general average of all readings was, therefore, 110°.

In this particular establishment both annealing ovens and leers were in use, these being on different floors. Temperatures taken 2½ feet in front of opening, or mouth, of both the ovens and the leers, were found to be constant, the ovens registering uniformly 94° and the leers 98°.

FACTORY NO. 2.

This establishment possessed one 12-ring tank furnace. It was examined June 18, at 12.25 p. m., with the outside temperature at 90°. The temperature taken at a point 2 feet from but directly in front of one ring showed 142°, two others taken the same distance from but slightly to the side of the ring holes showed 135° and 137°. Temperature near cleaning-off boy, 105°; near the mold boy, 113°; in front of the glory hole, 116°; at finishers' bench, 104°; where snap-up boy stands to rub excess glass off neck of bottle, 103°; where carry-in boy picks up ware, 98°; in front of leer where carry-in boy stands to deposit ware, 125°.

It has seemed necessary to enter into this much detail regarding temperatures in two plants in order to bring out clearly the importance of the subject and at the same time the uncertainties in the way of correct judgment in every case. To avoid further detail, however, the following table is presented showing for all plants in which temperature readings were made the average and extreme temperatures at certain selected points. As, however, the heat within the factory is governed in some degree by the outside temperature, the table presents in each case the excess temperatures; that is to say, the difference between the inside thermometer reading and the outside temperature at the same time, in preference to giving the absolute amounts. All readings were made during the month of June.

TEMPERATURE READINGS IN WORKING PLACES IN THE GLASS FACTORIES INVESTIGATED COMPARED WITH TEMPERATURE OUTSIDE IN THE MONTH OF JUNE.

Place of taking temperature.	Degrees above temperature outside of factory at same time.		
	Minimum.	Maximum.	Average.
Immediately in front of working hole of furnace	42	54	50
Position of clean-off boy's body	3	22	16
Position of mold boy's head	12	24	19
Position of machine boy's body	22	24	23
Immediately in front of "glory hole"	22	54	36½
Place where carry-in boy takes up ware	2	24	11
Immediately in front of mouth of "leer"	21	52	34

This table of temperatures must be interpreted very strictly, as the limitations upon such a method of showing heat conditions are very decided. In the first place, the figures as given may be taken as indicating the absolute temperatures, during the warm season, of the most highly heated points in the blow room. With the exception of the mouth of the working hole, these points represent places at which the boys of several of the more important occupations pass a portion of their time. In the second place, the variations in temperature as shown to exist between the several points in the blow room suggest the varying conditions surrounding the different occupations. Finally the table of maximum and minimum degrees show the variation of temperatures at the same point in different factories.

Further deductions than these, however, can not be justly made from thermometer readings. As has been pointed out the degrees of heat thus recorded do not show the actual conditions of heat under which the work in the blow room proceeds. Such conditions depend upon several circumstances of which the degree of heat as shown by the thermometer is only one. To cite again one such circumstance, the heat of the blow room is very unequally distributed, arising as it does from several sources. At the points of its greatest intensity, it is not encompassing. It radiates from relatively small openings and strikes one portion of the body much more strongly than it does another portion. The mold boy's face, chest, and arms may be subject to the very severe heat from the working hole, while his back and the lower portion of his body may be relatively much cooler. The experience is somewhat analogous to that of standing before an open grate. In such a position a portion of the body may easily endure a heat that would be fatal if it encompassed the body completely. Thus when a thermometer placed at the mold boy's position shows a temperature of 120° F., it does not mean that the boy is surrounded by a heat of that degree. It is this distinction between the effects of a localized and the effects of a circumambient heat that renders so unbearable the heat caused by placing the leers too near the furnace. In such case the overlapping of the two heat zones raises the whole working atmosphere to a fixed degree.

As a rule the work of the furnace room proceeds less rapidly in summer than it does in winter; in most factories the daily output in the warmer season is considerably less than in the cooler season. As an example of this there may be cited a large bottle factory located in a section subject to considerable seasonal variations of temperature. In this factory the average daily product of quart bottles per shop for November, 1907, was 162 dozen, while for June, 1908, it was only 144 dozen, a decrease of 11.1 per cent.([a])

The fact of the extreme discomfort of the heat of the furnace room is indicated by the tendency of the shop boys to desert the work as soon as the warmer days of May or June arrive. This tendency to desert is so strong that many employers have instituted a bonus system for the benefit of such boys as remain until the end of the "fire." Other employers arrange their wage payments in such a way that a boy who leaves before the end of the "fire" loses a portion of his pay. In nearly all factories this exodus of unskilled help in warm weather is a serious problem. The usual solution is to make use of the numerous school boys who are now on vacation and are anxious to earn extra spending money.

The intensity of the heat of the blow room in warmer weather is also evidenced by the fact that heat prostrations and heat affections short of prostrations are very common in warmer weather. About half of the mothers who have sons in the glass factory stated that their boys suffered in warm weather from extreme exhaustion, headaches, and sleeplessness. Being "burned out" is an ailment reported in several cases—the term "burned out" meaning that the person affected was suddenly seized by weakness and blindness while at work. This was said not to have permanent seriousness, but caused a loss of a day or two from work and a greater sensitiveness to heat afterwards. On the other hand, it is to be noted that a part of the sickness attributed to the heat of the blow room may be attributed to the injudicious drinking of ice water.

The foregoing considerations of the heat in the blow room have been confined to the conditions existing in the warmer season of the year. The conditions in the winter season offer a different problem. In the warmer weather the ill effects of the heat show themselves directly in the form of prostration or affections directly due to the high temperatures. In the winter the immediate danger to health arises from sudden changes in temperature. The open character of building which diminishes the heat in summer also allows the winter cold to penetrate. The zones of heat immediately around the furnace, the glory hole, and the leer are of almost the same degree in winter as in summer, but the temperature of the areas outside these zones is reduced almost to the level of the temperature outside the factory. As a result, the boys, especially those whose occupations keep them moving about the factory, are subjected to considerable and often violent changes of temperature conditions. The carrying-in boy, for example, at both ends of his journey stands in a heat usually sufficient to induce free perspiration, whereas the middle portion of his journey is through a zone of very low temperature.

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[a] Pint bottles: Daily output was 204 dozen in November and 180 in June. Half-pint bottles: Daily output was 252 dozen in November and 204 in June. This is a common experience on all classes of ware and in all plants.

The danger to health following sudden changes in heat conditions is likewise present when the boys leave the factory for their homes. The boys, as a rule, have little or no extra clothing to protect them from the outside weather and rarely take the trouble to wait in the factory until their bodies are sufficiently cooled to bear the change. This danger is particularly acute when night work is being done. The night shifts quit between 2 and 4 o'clock in the morning, the time when the weather is normally most severe, and the time when the boys through sleepiness and anxiety to get home are least likely to consider the matter of their health. The probability of injurious effects on health due to these sudden changes of temperature is a most palpable one, but it is one that offers little opportunity for tabular or statistical presentation.

The "summer shutdown" during July and August, which obtains in most establishments, relates directly to this question of heat and production. It requires from two weeks to a month each year to reline furnaces and make necessary repairs. Formerly this was done whenever the business slacked up or when the conditions became so bad that repairs had to be made. The unions early began to demand that the necessary repairs be made in July or August, so that there would be no shutdown in winter time when the work was more agreeable. Comparison of summer with winter output induced some manufacturers to concede the point, and gradually the period of shutdown was extended by agreement to include July and August. Owing to the financial distress of 1907 a large number of furnaces were closed down for lack of orders, and the American Flint Glass Workers' Union in convention proposed that because of the hard times the summer shutdown of 1908 be abrogated.

From this consideration of the subject it is evident that the heat, which is such an important factor in furnace-room work, nominally results from a combination of circumstances. It is highly important to note that certain of these circumstances are easily within the control of the management.

Thus, one of the principal causes of the excessive heat in some furnace rooms is the construction of the building, together with the arrangement of its contents. It is never a difficult matter to ascertain the prevailing direction of the winds during the summer months in any given locality; and it is usually as easy and as cheap to build so as to get the fullest benefit of these winds as to build otherwise, and, having so built, to place the leers in such position that their heat will be blown back upon themselves instead of outward toward the working force. One factory was found which, originally built a generation ago, had recently undergone a remodeling along these lines. The leers were taken out and rebuilt on the leeward side or end of the building, basing the position on ascertained data as to the direction of the prevailing winds in that locality. They were so placed as not to get the direct wind from the furnaces. At an expense of $8,000 adjoining property was bought and buildings removed to get an opening through to the street on the prevailing windward side. This was done as an investment, not as a philanthrophy, and has proved profitable by reason of the increased production during the warmer months.

An example bearing upon the importance of this principle came under notice. A bottle factory, built well in the country, was open on all sides, and the furnace room was so located as to derive all possible benefit from the breeze. Recently the owner of the neighboring land, as a result of a dispute with the glass company, built a "spite" fence on the border of his land in such a way as to greatly reduce the amount of breeze entering the blow room.

In the arrangement of the contents of the building with relation to their heat-producing qualities, the relative location of their furnaces and the leers is most important, not only in the matter of orientation with relation to the prevalent summer winds, but also in relation to the distance which separates the two sets of equipment. When the leers are close to the furnace the heat zones overlap, and the temperature of the whole working space, as has been earlier mentioned, is raised to an undue degree. The heat becomes encompassing and there is no relief for the workers, even for those who are moving about. The hottest blow room visited owed its extreme heat to this fact. The leers were within 12 feet of the furnace, and in warm weather the heat of the whole intervening space was absolutely unbearable to one not accustomed to it. For convenience of working, the mouth of the leer is made to face the furnace. Its distance from the furnace, however, is not predetermined by any necessity, and its situation in this regard has a determining effect upon the heat of the furnace room.

Entirely aside from matters concerning the construction of the plant, there are certain devices in use to lessen the heat in the blow room. In eight different establishments a sheet of water is made to fall between the wall of the furnace and the working-shop space. The device in one of these establishments was as follows:

A sheathing of sheet iron is built around the outside of the tank, a space of about 1 inch being left between the sheathing and the brick wall, suitable holes being left for the rings or working holes, and these flanged so as to protrude beyond the sheathing. Around the top of the tank runs a pipe, perforated at intervals of about 1 inch, which acts as a sprinkler and pours down upon and over the iron sheathing a continuous sheet of water, which is collected in a trough at the foot of the tank and is drained off. This greatly reduces the heat of the working space, and this is reflected in the fact that since its introduction the average production per shop has risen from 5 to 10 per cent.

In a number of establishments asbestos-covered boards were arranged so as to check much of the indirect or secondary radiation from the furnace walls, and in a few cases to deflect somewhat from the blowers the direct radiation from the working hole. While this device, like so many of the mentioned devices, was intended primarily to benefit the blowers, it did help in some degree to ameliorate the working conditions of the boys.

In a few cases blue-glass screens were placed between the finisher and the glory hole to protect him from the glare. Incidentally these helped to reduce the heat of his working place, and to a certain extent the snapping-up boy and the carrying-in boy were benefited by the arrangement.

Another establishment has installed a large iron pipe coiled around inside the furnace above the pots and connected with a large fan, which, by suction created in the pipe, draws off some of the heat which otherwise would radiate into the blower's face, and carries this heat into the packing room to warm it in winter. Formerly it was necessary to heat the packing and other rooms by means of steam coils; now the waste heat of the furnace is utilized.

In this same establishment there is also the device, previously mentioned, for keeping the leer mouths closed except at the instant during which the ware is being put into them by the carry-in boys. Tight-fitting sliding doors are so arranged as to close over the mouth of the leer, these being connected with a treadle trap on the floor in front of the leer. The boy puts his foot on the treadle, and the pressure acts through chains and pulleys to draw back the door from the leer mouth. He deposits his ware in the leer, removes his foot, and the door slides in front of the leer mouth again. Much of the direct radiation from the leer is thus prevented, and this, with the relief from furnace heat resulting from the coils mentioned above, has materially reduced the heat in the blow room of this establishment. The relief is reflected in a very large increase in output during the warmer months, and, in the case of the leer doors, in a substantial saving in fuel. It has been the experience of this establishment that whereas the temperature of the leers formerly had to be kept at not less than 1,000°, because of the loss of heat by radiation through the open mouths, and because of the cooler air of the blow room sucking into the leer mouths, with the door system a constant temperature of from 750° to 850° is sufficient and the results are better. The saving in fuel is obvious. Here, again, regard for the comfort of employees results in economy in manufacture.

As this establishment was accustomed to operate the full year, the summer heat was for many years a problem with the superintendent. The fact that the pressing was done by automatic machinery, and that there was a constant procession of hot molds before the workers, made the heat more than usually felt. The superintendent finally devised the following system of obtaining cool air in summer, a system which had been in use two years at the time of visiting. In the basement perforated pipes were arranged across a doorway, just in front of the air compressor's fan. When water was turned into these pipes it fell from the perforations in almost a solid sheet. The fan drew in air from outside the factory through this sheet of water, the air thus being cooled and purified at one operation. This air was then led through pipes to the several shops, where it came out of 4-inch pipes under low pressure (about 4 ounces to the square inch). The presser, moreover, was able to regulate the volume of air from where he stood, and a separate pipe opened above each worker. The air came out as a gentle breeze, scarcely noticed by the men, but very effective in keeping them cool.

The superintendent stated that immediately on installing this device an improvement of the work was noticed; and during the months of August and September, usually months in which the production was small because of the heat and fatigue from the whole summer's work, the production exceeded that of any other part of the year. The superintendent also stated that previous to the installation of the air-cooling device his men were frequently troubled with headaches, owing to the poor air, and that this interfered with the regularity of the work. After the cooled and purified air was supplied cases of headache practically disappeared.

THE FLOORING OF FURNACE ROOMS AND ITS CONDITION.

Furnace-room floors are either of brick or cement. In either case they are quite commonly broken, uneven, or rough. It may be that the settling of the heavy furnaces and leers renders it more than ordinarily difficult to keep a furnace-room floor in good condition. Whether or not this is true the fact remains that only 10 per cent of the floors were found to be maintained in good repair. While but six were reported as being in extremely bad shape, the number reported in excellent condition was equally small. It may be stated, therefore, that the flooring conditions of blow-rooms are seldom very good and sometimes very bad. As a rule, the paving, whatever its original material, is in at least an indifferent state of repair, rough, uneven to walk upon, and dirty in various degrees. The roughness is not especially an evil in itself, and with the exception of broken glass, the varieties of dirt common to a blow room are neither dangerous nor offensive. The presence of broken glass is, however, very common, and forms a considerable danger for the feet of the boys, who are often badly shod. Several examples of injuries caused by treading or falling upon broken glass were found during the investigation. One of these accidents caused a loss of three days' working time; another a loss of two days; several the loss of at least an hour and more or less serious pain.

Damp floors are much less common than floors littered with broken glass, and they are much less excusable. They are attributable almost entirely to the carelessness of the workers, but in a few cases the dampness is due to improper shelter from the rain. The evil is not widespread, but there are at least three factories in which the furnace-room floors are kept in a constant state of dank sogginess. As a result the feet of most of the boys working in such rooms are constantly wet.

Neither damp floor nor a floor littered with pieces of glass is a necessary result of the industry, as shown in the well-paved, clean floors of a few of the factories visited. In these factories the furnace rooms were swept; broken glass at once removed from the floor and placed in receptacles kept for the purpose; no careless spilling of large quantities of water was tolerated; and considerable care was exacted from employees in the matter of disposing of waste or broken articles. All factories possess receptacles for broken or waste glassware, but in all but the few factories mentioned very little attention is given to the proper use of such receptacles.

The presence of broken glass upon the floor is not only a possible source of injury; it also entails a financial burden upon the employees by being very destructive to shoe leather. This matter will be particularly emphasized in discussing the work of women in the finishing department, but it is no less a serious fact in the furnace room. It was a common complaint of the families of the boys who were working in furnace rooms where the floors were especially bad that shoes lasted there less than one-sixth of the time which they would have lasted under other conditions. An estimate made from numerous reports on this subject leads to the conclusion that, in many furnace rooms, the loss to the employees in shoes was approximately three times the amount it would have cost to have kept the floors clean.

Sometimes dirty floors and floors covered with broken glass are found in plants having excellent conditions in other respects; but generally speaking, carelessness and lack of consideration of working conditions in this particular carry with them a disregard for the convenience or comfort of employees in all particulars.

It is not to be expected that the floor of a glass furnace room will be clean in the sense that a store or office floor can be kept clean. This was not the standard used in making reports on the subject. When a floor was reported dirty or covered with broken glass it was meant that it was unnecessarily dirty for a glass furnace room floor and that broken glass was allowed to accumulate on the floor. It is true that blowers object to having glass cleaned from the floor in the immediate vicinity of the shop while they are working and foremen who have plenty of "spare boys," who could keep the floors clean while waiting to fill in the places of regular boys, do not have it done because of the objections of the blowers. However, where foremen have forced the issue and required clean floors the blowers have become reconciled and even pleased; they have found that the work of cleaning can be done with little inconvenience to the working force and this with no loss to themselves because of interruption.

OVERCROWDING IN THE SHOP.

As one enters the usual furnace room and notes the large area of apparently unused space surrounding the working shops, there does not seem to be any possible reason for crowding the workers; but there is such a reason, an economic one. It is to be borne in mind that glass blowing is almost always piecework, so far at least as the skilled labor is concerned. The largest possible output is therefore the objective of the blowers as it is of the employers. A shop of blowers, therefore, makes every effort to arrange the work so as to lose as little time or effort as possible.

The foot bench, the marvering iron, the molds, etc., are all so distributed that in the production of each bottle the blower is required to take a minimum number of steps. Any other arrangement, requiring more steps or fewer, would throw him out of his "gait" and retard production. The blowers become accustomed to these regular motions which tend to become automatic, and with elbows almost touching, blowpipes almost striking each other, they step and turn and follow in each other's tracks with a regularity of motion almost rythmic, and a rapidity, where small bottles are being produced, that is startling. In all these shop arrangements the comfort or convenience of the boy helpers in the shop is entirely ignored. The manufacturer in building the plant arranges it for the largest possible production, but with the experience that certain conveniences for blowers are necessary to secure that production. Beyond this he does not go. Neither in the location of furnace, the arrangement of the furnace room, the placing of leers, or distribution of the shops does care or forethought for the boy enter. He must work in the economy of the shop in the space allotted to him.

Nevertheless, until the introduction of the tank furnace there was little overcrowding. With the pot furnace overcrowding is rare, although it may occur occasionally. Thus in one Pennsylvania establishment using pot furnaces crowding existed simply because the furnace room was too small, the annealing ovens being built so close to the furnace that the workers were necessarily limited in their movements. In one of the shops of this factory, indeed, the shop itself was within 2 feet of the large annealing oven. Such a condition, however, is very exceptional. Almost always the furnace room is of ample size and such crowding as exists comes not from the ordinary crowding of a room, but from a congestion of workers due to working arrangements which could be changed without increasing the size of the room.

With the pot furnace such congestion seldom occurs because of the construction of the furnace and its necessary method of operation. Usually alternate pots only are operated at any one time, the others being banked while a fresh batch of mix is being melted. The result is that there is plenty of room between shops, and plenty of room for a shop to spread out. The only case in which overcrowding is likely to occur is where two or more shops making very small ware are working out of the same pot. A pot will hold from 1 to 2 tons of molten glass; usually 1½ tons. A shop making very large ware will use up the glass in less than the working hours of a day, while on small ware two or even three shops could not use all the glass in one day. Superintendents are supposed to, and generally do, arrange the shops each day so that the glass will all be used and yet there will be no undue crowding. If a shop making 10-ounce bottles, for instance, is assigned to a pot, another shop making 2-ounce bottles would be given the same pot. Occasionally, however, the orders may so come in that it becomes necessary to put three shops making small bottles on one pot, and then the working space will be really crowded. This would not, however, be a permanent condition; and to find extreme crowding in one or more parts of a pot furnace on a given day can not be taken as an evidence that the furnace room is regularly crowded; a visit the next day might reveal no crowding whatever.

With the introduction of the tank furnace the working arrangements were somewhat changed and crowding tended to become more of an evil. A pot furnace is circular and the shops are located all around it; a tank furnace, on the other hand, is worked only at the semicircular projection of one end, and the shops are necessarily congested at this one end.

With the tank furnace, moreover, there are certain economic reasons for crowding which do not exist in the case of the pot furnace. In the first place, with the pot furnace work is done at alternate pots only, whereas with the tank all the working holes are being used at the same time. In the second place there is no limit, except that of physical room, to the number of shops which can work at one working hole of a tank furnace. As indicated above, a pot usually holds 1½ tons of glass and when this has been used out the day's work for the shop or shops working on that pot is done; hence there is no economy in putting more shops on a pot than are necessary to work out the glass in the eight and a half or nine hours of actual working time. In the case of continuous tanks the supply of molten glass does not exhaust, but is kept at a constant level by continuous flow from the melting end of the tank. Hence, the greater number of shops that can be worked at one ring the greater the production.

Overcrowding was reported in 20 establishments, 16 of which were bottle factories, 2 tableware factories, and 2 engaged in the making of lamps and shades. This is only a relatively small minority of all the factories scheduled. On the whole, overcrowding is not a widespread evil; and it is here emphasized partly because of its close relation with other features of the work, such as accidents and excessive heat, and partly because it is seemingly so unnecessary in any factory.

It is true that the shop boys get into a regular swing or "gait" just as was described in case of the blowers, and when these semiautomatic movements are once acquired boys can pass each other to and fro in an extremely small space, and even regularly jostle their bodies against each other without much danger of striking one another with hot tools or hot glass. The constant changing of "small help," however, is continuously thrusting green boys into the shop, in which case there is real danger until all engaged in the "team" work get into a harmonious swing.

Again, the economic idea back of the crowding—i. e., greater productive capacity per shop—seems to be erroneous at best, and certainly the crowding can be and often is carried to a point where rapid production is interfered with. While the blowers produce the bottles and are in a sense the pace setters for the shop, yet after all they can not blow any faster than the mold boy can operate molds, the clean-off boy clean stems, the snap-up boy snap up, and revolutionary as it may appear to the mind of the skilled blower, his convenience can be carried so far that it so hampers and inconveniences the "shop boys" that this reacts upon him and reduces his output.

Unfortunately some tanks have been built with ring holes too close together for comfortable working, and these constructive faults are not easy to be corrected. Much, however, can be done to remedy the effect of such faulty construction. In one plant in eastern Pennsylvania, for instance, the shop arrangement avoided much discomfort. The most distant bottle shop was 28 feet from the leer, but the carry-in boy had only 18 feet to go, the finisher being stationed between the shop and the leer, so the snap-up boy carried the bottle 10 feet to the finisher. The snap-up had by far the most walking to do, as he carried one bottle at a time, while the carry-in carried three.

Another shop in the same plant, 40 feet from the leer, and working on demijohns, had its finisher placed halfway between foot bench and leer, so that the snap-up carried 20 feet to finisher, and the carry-in boy had only 20 feet to go in order to reach the leer.

While this arrangement would seem to work a hardship on the snap-up and give him too great distance to travel for the work he has to do, it seems on the whole to be a move—an extreme move—in the right direction, the utilization of the space between foot bench and leer to relieve the congestion of the shop.

In Indiana an establishment was found where a similar attempt was being made. The arrangement of the shop, was intended to equalize as far as possible the distance from the various shops to the leers. There were two sets (three leers in a set), one at each end of the tank. The boy on the shop nearest the leer carried to the leer most distant from him, while the boy on the most distant shop carried to the nearest leer. With the exception of one shop, none of the carry-in boys had to go more than 25 feet, and this shop had two carrying-in boys.

A similar example is that of a plant in New Jersey, which had recently moved the finishers and the glory holes farther into the space between the furnace and leers, much to the general advantage of the shop, even considered solely from the standpoint of output.

TOILET ACCOMMODATIONS.

The toilet accommodations offered the shop boys in the usual glass factory are of an extremely simple character and easily described. For the sake of more unified treatment, however, it has been found desirable to include such description as part of a single broad presentation of the subject for the factory as a whole. As, moreover, the subject is of much more importance in its relation to women than to boys, such general description is preferably given place in the part of the report dealing with women and girls in the industry.

DISCIPLINE OF FURNACE-ROOM BOYS.

Unquestionably one of the things that makes a glass factory more attractive to a boy than many other lines of employment is the free and easy life associated with the work of the furnace room. Recently there has been a tendency toward more rigid discipline, but in the great majority of establishments discipline is still lax. The boy may yell and sing as much as he likes, and, it must be remembered, he has the added incitement to do so of a large number of other boys of his own age.

Many employers claim that the fact that the boys do sing and yell at their work is witness that they are healthy, hearty, and happy. While this proof is by no means conclusive, the fact of the boys' noisy ways is significant. There is a fascination about the work of the furnace room which appeals to a boy. It is spectacular work, and whatever its degree of physical strain it is not repressive of the spirits. Usually, too, it is not confining in the sense that the task is always the same. As has been pointed out earlier, a more or less complete interchange of occupation exists in most furnace rooms, although not in all. Where such interchange does exist much variety is added to the work of the boy. He may spend part of his time sitting as a mold tender, part standing as a clean-off, and part running or walking as a carry-in or a snap-up. The traditional "glasshouse yell," the singing, and romping give him opportunity to vent his childishness and appeal to his boyish love of making a noise. Apparently, at least, he enjoys it. Even when tired out and no longer enjoying it, glasshouse traditions will make him join in every yell that is started—every "rough house" once begun. To become laggard here is fatal to his standing in "the shop." He will be socially "ostracized;" even the steadiest blowers would consider him "no good." To help in initiating each new boy and "giving it to him" a little bit stronger than he "got it" when he was himself initiated is one of his vested rights inherited from the customs of the trade. The hazing of new boys is sometimes serious, always painful for the new boy, the extent of his misery being the measure of the joy of the older boys who are doing the hazing. That blowers sometimes join in this hazing of a new boy stamps the custom with an approval that only strong superintendence can suppress.

Recently, as suggested, there has been a tendency to suppress this excessive exuberance of spirit on the part of furnace-room boys. A southern factory has among its rules: "Also all boys must stop hollering and insulting people going by, or visitors." A West Virginia plant warns boys that complaints have been made by neighbors and that "singing and yelling must be stopped." In several furnace rooms signs were found posted forbidding undue noise, and in a few plants the employer or foreman pointed with pride to their success in suppressing the yelling and singing. In June, 1903, the boys in a New Jersey factory struck "because the manager objected to their singing to while away the weary hours of night while at work." This movement toward the repression of the shop boy's noisy habits is based, apparently, upon two things. The first is that glass factories are coming to be more and more located in settled parts of communities where there are immediate neighbors to object to undue noise. The second is the fact that a new generation of capitalist employers and managers are entering—men who are without many of the trade traditions and who object to a noisy shop, partly because it is irritating to them and partly because they conceive that it is opposed to the best production.

ACCIDENTS IN THE FURNACE ROOM.

In collecting information relative to accidents in the furnace rooms of glass factories it was found impossible to obtain absolutely complete data. It is the general practice of the larger establishments to keep full records of accidents, even those of a minor character. Also, many establishments are insured against accidents to their employees, and in such cases the insurance company's memoranda are usually kept in accessible form. There remained, however, a large number of factories in which no records of any kind were kept. Under such circumstances the information regarding accidents was necessarily of doubtful reliability, depending as it did upon the memories of the respective managements. In nearly all such cases, therefore, the information supplied at the factory was supplemented by personal inquiry in the community.

This latter method was not wholly satisfactory even so far as the scheduling of reasonably serious accidents was concerned. In the usual glass community, it is true, an accident of any seriousness is a matter of common information and, as a consequence, most of such accidents are readily ascertainable. It is otherwise, however, with minor accidents, such as superficial cuts and burns, causing the loss of only a few hours' time. Such accidents are rather common in the industry, and even the boys themselves do not recall such mishaps with any accuracy, particularly as the factory management, as a rule, does not deduct from wages in such cases.

As a result the data upon minor accidents are too incomplete to warrant tabulation, and in the table following no attempt has been made to include accidents causing the loss of less than two days' time. With this limitation, however, the table may be taken as a nearly accurate presentation of furnace-room accidents during the year preceding the time of the visits to the respective factories.

It is to be noted that the table includes such injuries only as resulted from accident. It does not cover injuries due to intention on the part of fellow-employees. This latter type of injury is of peculiar interest and will be fully discussed later. There were no fatal accidents and none causing permanent disability during the period covered.

ACCIDENTS IN FURNACE ROOM CAUSING LOSS OF TWO DAYS TIME OR MORE, 1907-8.

Persons injured.	2 days, under 3.	3 days, under 1 week.	1 week, under 1 month.	1 month, under 3 months.	Over 3 months.	Not ascertainable.	Total.
Shopboys under 16 years	1	4	2	1	1		9
Shopboys 16 years and over	4	5	2	2		[a] 3	16
Total shopboys	5	9	4	3	1	3	25
Other persons in blow room	1	4	5	1	[b] 2	[b] 2	15
Grand total	6	13	9	4	3	5	40

[a] One boy was cut on hand, not very seriously. One boy had right elbow cut; left factory. One boy had right foot cut; slipped on glass.

[b] One of these had thumb cut off in pressing machine. Skilled man.

It is not unreasonable to suppose that, owing to the mentioned difficulties in the way of obtaining accurate data, the table as given may be incomplete in some degree. If so, the error most probably lies in the figures showing accidents causing loss of less than one week's time. For accidents causing a greater loss of time than one week the table is believed to be accurate. Even with the accidents causing the smaller losses of time there is no reason to assume a large margin of error, and special studies made in a number of selected establishments strongly suggest the complete accuracy of the figures as given. In any case, however, the table indicates fairly conclusively that accidents of a serious nature are relatively very infrequent among blow-room workers, especially among those doing boys' work. Including those entered as "not ascertainable" there were only eleven accidents among shop boys causing a loss of over six days' time. The one accident of great gravity was caused by a blower striking the face of the boy with a "gob" of freshly gathered glass. The result was an extremely painful and dangerous burn to the side of the face and eyes.

Almost all of the scheduled accidents were trade accidents due to the conditions peculiar to the work. This is shown by the following table, in which the injuries suffered by shop boys are classified according to their character:

ACCIDENTS TO SHOPBOYS, CLASSIFIED BY CHARACTER OF ACCIDENT.

Cuts from broken glass	11
Burns from hot glass or irons	3
Glass in eye	5
Bruises	2
Other injuries	4
Total	25

The relative infrequency of serious accidents in the blow room, as indicated by the first table, was verified by an intimate study of blow-room conditions and the chances of accident. In the same manner a considerable frequency of minor accidents was demonstrated by observation in the factories and by examination of the employees.

The chief source of danger arises from the presence of hot glass and broken glass. From the time a ball of molten glass is gathered from the furnace until the molded article is deposited in the leer the glass is sufficiently hot to cause burning if brought into contact with the flesh. The slightest carelessness on the part of a worker may very easily result in injury to himself or to others, and as many of the workers are young boys a degree of awkwardness and carelessness is to be expected.

An important check to undue carelessness, however, lies in the automatism of the work. A shop in good working order moves with almost mathematical precision. Glass at a red heat is handled back and forth and boys with various heated articles pass and repass, but if the work is properly adjusted the passing is done at regular and almost exact intervals.

Certain factories, on the other hand, increase the danger of burning by overcrowding the working space. This is especially true of tank furnaces. In the desire for fast work there is a temptation to crowd the shops near the furnace and to pack together the members of each shop, in order that the article being made may be transferred from one worker to another with as little loss of time as possible. In such cases the space allowed the mold boy and snapping-up boy may become so small that the slightest mischance results in a burn. Also there are several cases where the walls of the building are so near the furnace that there is insufficient space for the carrying-in boy to move in and out easily. In four factories, particularly the end shops on the tank furnace were so close to the building's walls that the carrying-in boys on these shops were almost "pocketed," and in moving in and out had to exercise the greatest care in order to avoid striking the other workers with their paddles of hot ware. Such overcrowding is unnecessary and places an undue responsibility upon young boys. With reasonable space to move around in accidents resulting from one person striking another in the course of his work are reduced to a minimum, as is shown in the experience of a large number of well-managed plants.

Flying pieces of glass are fertile sources of burns and cuts, chiefly as a result of the present method of cleaning off blowpipes. In making finer grades of ware the waste glass on the bottom of the blowpipe must be cleaned off after each blowing. This is done by the cleaning-off boy, who stands beside the blower, on the foot bench, if there is one, and cleans the pipe end by drawing it across a rasp near his feet. This rasp is usually placed above a box, into which the glass as broken off may fall. Very often, however, pieces of glass instead of dropping into the box fly upward and outward. These pieces are usually small, and alighting on the skin cause only superficial burns or cuts. Striking the eyeballs, however, a piece of glass may cause injuries of considerable severity. Two injuries of this character came under observation during the present investigation. Both were serious, but neither resulted in permanent impairment of the eyesight.

This method of cleaning off blowpipes, by which such accidents are rendered possible, does not seem necessary. An inclosed box with a relatively small opening for the insertion of the pipe, with a properly constructed concealed rasp, could be easily and cheaply substituted for the present open box. An inclosed box of such type would render negligible the amount of scattering glass resulting from the cleaning-off process.

A much less common, but in itself more important, cause of flying glass is the so-called "chute" system of carrying-in. The "chute" is a method still retained in two factories for carrying bottles from the finisher's bench to the leer, where the leers are on a lower floor level than is the blow room. In such case the snap-up deposits the finished bottles in a chute, down which the bottle slides until it is stopped by a gradual upward bend in the "chute." It is then removed by an attendant and placed in the leer.

The reasons for the use of this unusual system will be discussed later in detail. Here it is sufficient to note that the "chute" method results in numerous burns and cuts, due to the breaking of the bottles at the bottom of the chute. If the attendant whose duty it is to remove the bottle is slow, or if two bottles are started down the "chute" at the same time, or if the snap-up gives the bottle too much initial impetus, there is a "smash" at the end of the chute, either from collision or from the bottle's jumping the trough. That such "smashes" are frequent is evidenced by the number of scars on the arms and necks of those who do this work and by the numerous small holes burned in their clothes. The greatest danger here, as in the case of the cleaning-off process, is that of possible injury to the eyes.

Many cuts and burns come from the presence of broken glass upon the blow-room floor. In making glass there is necessarily some breakage; also there is an appreciable percentage of imperfect ware to be discarded at various stages of the work. Receptacles of some sort are usually provided for such ware, but in the hurry of the work flawed articles are often carelessly thrown, fall upon the floor, and break. As a result the snapping-up and carrying-in boys, often badly shod, must walk back and forth upon a floor littered with broken glass. Foot cuts are frequent, and a fall may cause severe laceration. Two of the more serious accidents scheduled were due to boys slipping and falling upon broken glass.

Injuries caused by glass cuts and glass burns may be temporarily very painful and may cause disfigurement, but it is only very rarely that they result seriously or cause any long-continued suffering. This is due in part to the excellent antiseptic properties of heated glass. Septic infection as a result of such injuries is extremely uncommon. In the great majority of cases the injured person can return to work after the first stage of acute pain has passed and the wound has been dressed.

Cuts and burns are the injuries most risked by boys in the furnace room. Other kinds of accidents present no uniformity of character and are mostly of a slight nature. The serious ones are hardly more common than those of ordinary domestic life. Four accidents of this class were scheduled, and are very probably the only ones that occurred. One case was that of a boy who, walking backward, fell into a pail of hot water and was severely burned. Another boy dropped a heavy iron blowpipe upon his foot. The third, walking during the course of his work, fell and fractured his arm. The fourth accident was also a broken arm, the cause not being ascertainable.

In summary it may be said that the conditions in nearly all furnace rooms are favorable to minor accidental injury, but are not favorable to serious accident—death, loss of limb, or permanent disability. Machinery is little used and the kind used is, under normal conditions, not dangerous. The tools are few and simple and offer little chance of injury in their use. There are no belts or pulleys in which to entangle arms and legs. No explosion or other calamity is to be anticipated. And, finally, the low, open character of the building renders personal danger from fire almost negligible.

The preceding statements have been concerned solely with accidents which had occurred in the establishments visited during the year previous to the date of visiting. In the matter of serious injury to eyes, however, a more general inquiry was made for a period beyond the limit of the scheduled year. This seemed justified because of the repeated charges concerning the actual blinding of boys in the furnace room. The result of the inquiry was to develop only one case of permanent eye injury—that of a boy who had entirely lost the sight of one eye.

Accidents resulting from conditions of labor in the glasshouse, but not occurring in the blow room itself, were occasionally noted. One case was that of an Italian boy who had committed suicide because, as it was alleged, his father had driven him to the factory and then beat him over the head to make him do more overtime work when the boy said he was "too tired." Another case was that of a boy who was killed by an express train while on his way home from the factory after having worked on the night shift. His way led along the railroad track, and on this occasion he had evidently sat down to rest and had fallen asleep.

CHAPTER IV.

HOURS OF LABOR, NIGHT WORK, AND OVERTIME IN BOYS' OCCUPATIONS IN THE FURNACE ROOM.

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HOURS OF LABOR IN THE FURNACE ROOM.

Of the 179 establishments included in this investigation, 169 had furnace rooms, and thus employed persons at the so-called boys' occupations. Information in regard to the hours of labor of these employees is presented in the following pages. This information was obtained directly from the pay rolls of the establishments concerned and showed the facts for a selected pay-roll period. The pay-roll period selected was, as a rule, the one just prior to the investigation by the agents of the Bureau, late in 1907 or in the first half of 1908. Care was taken, however, that the period selected should be one when the factory was working full time and approximately the normal number of employees were at work. Data concerning 5,009 boys under 16 years of age and 79 females in boys' occupations, employed in 161 establishments, furnish the basis of the following discussion as to hours of labor.

Of the 169 furnace rooms scheduled, 8 were employing neither children nor women at the time of the investigation. Each of the remaining 161 were employing some boys under 16 years of age and, in addition to such boys, 2 were also employing females at boys' work.

HOURS OF LABOR OF MALES.

The 161 furnace rooms referred to were of two general classes: First, those which worked only in the daytime, numbering 42 in total and employing 1,034 boys under 16; and, second, those which operated by night as well as by day, numbering 119 and employing 3,975 boys. In the factories of the first class no one worked at night, except a few furnace men, watchmen, etc. In the second class, as blowing was done at night, two shifts of blowers and, in consequence, two shifts of boys were necessary. In no case, however, did boys under 16 work steadily at night. Weekly, or rarely biweekly, alternation was the rule, the night force of one week becoming the day force of the next.

Moreover, there were several factories where night work was done in which the night force was not so large as the day force. In each of these, in consequence, there was a portion of the day force which never alternated, never worked at night; also there were some factories in which, while the other persons regularly alternated, those under 16 years of age did not do so. This was the case with certain factories located in States which forbade night work for children. When the law did not interfere, however, it was seldom that any such discrimination was shown; if a boy worked in a shop which alternated, he also took his regular turn at night work.

As a result of these two facts, that some factories operated less than their full equipment at night and some, in any case, did not employ children at night, it appeared that of the 3,975 boys under 16, scheduled as employed in day and night working factories, 1,183 were working only in the daytime. The other 2,792 were reported as regularly alternating between day and night work. It did not follow, of course, that the personnel of each of these groups always remained the same. But at any one time there was a definite separation of these two classes of workers, an alternating force on the one hand and, on the other, a force that worked only by day; and for most of the boys this separation was permanent.

Summarizing these facts, it appears that of the grand total of 5,009 boys under 16 scheduled in 161 glass factories, 55.7 per cent (2,792) alternated between day and night work, while the remaining 44.3 per cent (2,217), whether as employees of day-working factories (1,034) or as nonalternating employees of day and night factories (1,183), worked in the daytime only. The existence of these two systems of working introduces a complication that renders impossible a simple summary account of the hours of labor of furnace-room boys. Three distinct points must be taken account of: First, the hours of labor of boys who work only by day; second, the number of nights per week worked by alternating day and night boys; and, third, the length of the night week as well as of the day week for this latter group of boys. As the question of night work for children is of such vital significance in itself, it is particularly necessary that the information regarding such work should be complete. The following account, therefore, although somewhat detailed, is not more so than the complexity of the material necessitates and the importance of the subject warrants.

In each of the furnace rooms scheduled a full week for the day force consisted of six days' work, always with a somewhat shorter workday on Saturday. The working arrangement of the night force was, however, less uniform. In 83 factories work is done five nights only per week, Monday to Friday, inclusive; in 35 factories ([a]) the night force works these five full nights and an additional half night, beginning 12 o'clock Sunday night, and in one exceptional factory a second half night is worked Saturday evening, making for this one factory a working week of five full nights and two half nights, an equivalent in hours of six full nights. No Sunday work is anywhere done either by night or by day. The exact degree in which the shop boys were affected by these several working systems is as follows:

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[a] Including an automatic-machine factory, in which the working arrangements are somewhat exceptional, but which, broadly speaking, falls into this group.

Day work only		2,217
Alternating day and night work:		
Six days, five nights	1,641	
Six days, six nights	1,151	
		2,792
Total		5,009

The night work of boys was not distributed among the States with any uniformity. In some States no boys were found working at night; in others nearly all the boys employed so worked. This variation in practice is shown in the following table, the States being arranged in ascending order of frequency of night work:

NUMBER OF BOYS WORKING ON DAY SHIFT AND ON DAY AND NIGHT SHIFT ALTERNATELY AND PER CENT WORKING AT NIGHT, BY STATES.

State.	Boys under 16 years of age working.							Per cent of boys working at night.
	Total number.	Day only.	Day and night alternate weeks.					
			Total number.	6 days, 5 nights.		6 days, 6 nights.		
				Number.	Per cent.	Number.	Per cent.	
Illinois	334	334	....	....	....	....	....	....
New York	83	83	....	....	....	....	....	....
Massachusetts	24	24	....	....	....	....	....	....
Maryland	392	342	50	50	100.0	....	....	12.8
Kansas, Missouri, and Wisconsin (a)	104	86	18	8	44.5	10	55.5	17.3
Ohio	509	255	254	154	60.6	100	39.4	49.9
New Jersey	484	240	244	244	100.0	....	....	50.4
Virginia	90	38	52	52	100.0	....	....	57.8
Pennsylvania	1,755	599	1,156	605	52.3	551	47.7	65.9
West Virginia	640	186	454	96	21.1	358	78.9	70.9
Tennessee, South Carolina, and Georgia	70	6	64	64	100.0	....	....	91.4
Indiana	524	24	500	368	73.6	132	26.4	95.4
Total	5,009	2,217	2,792	1,641	58.8	1,151	41.2	55.7

[a] No night work regularly done by boys under 16 in Missouri or Wisconsin.

In the five States—Illinois, New York, Massachusetts, Missouri, and Wisconsin—which are here credited with having employed no boys under 16 at night work, it should not be understood that night work was never done by such boys. In each of these States the law prohibits such work, and in each State the law was sufficiently well respected to prevent the regular employment of children at night. Instances were developed, however, as exhibited elsewhere where certain of the factories concerned violated the law with more or less frequency.

In each of the States where the law was silent upon this point night work was regularly done by the boys in at least one of the factories. The exact proportion of night-working boys to the total number of boys in each State is shown in the last column of the table. It will be noted that with the exception of Maryland and Kansas at least one-half of the boys in each of these States worked regularly on the night shift in alternate weeks.

Considering next the precise length in hours of the working day and of the working week, a considerable diversity of practice is found to exist. In total thirty distinct sets of working hours were encountered, and the extremes of variation were far apart. For the great majority of boys, however, the variations were closely around two points, these two points being the two most usual systems of working prescribed by the two glass workers' unions. The shop boys are never members of these unions, but the working hours of shop boys in a factory are determined by the practice of the skilled glass workers—the blowers, the pressers, etc. The boys are, strictly speaking, the men's helpers. Their presence in the factory is desired just as long as the men are present, and with rare exceptions, such as the interference of a state law, these two classes of workers have, in any one factory, identical hours of labor.

In 132 of the 161 furnace departments concerned (82 per cent) all the skilled glass workers were members of one of the two existing unions and had their hours of labor fixed by union regulations. These are not precisely uniform for all the members of either union. Each, however, has a customary working system, to which the great majority of its members conform. To meet special conditions in a particular factory or in a particular class of work, this system has been at times departed from; but such variations affect only a comparatively small proportion of its membership and for the most part are not extreme. Therefore, the following summary description of the hours of labor of the two unions will be limited to the customary working system of each.

By one of these unions (the Glass Bottle Blowers' Association) the hours of labor are as follows: On the day shift 8½ hours, from Monday to Friday, inclusive, with a short day of 7¾ hours on Saturday, a total of 50¼ hours per week; on the night shift 8½ hours, from Monday to Friday, inclusive, with no work on Saturday night, a total of 42½ hours per week. When night work is done, the shifts alternate weekly, so that two weeks' work consists of six days and five nights, a total of 92¾ hours.

In the case of the day shift, moreover, arrangement of the working hours is exactly provided for: Monday to Friday, inclusive, from 7 a. m. to 5 p. m., with one hour for lunch and two rest periods ("tempos") of fifteen minutes each; on Saturday from 7 a. m. to

4 p. m., with only one rest period. For the night shift no such exact arrangement has been prescribed. In different factories the work begins variously, from 5 p. m. to 7 p. m., and after nine hours of work, with one or one-half hour for lunch, ceases for the night. Most frequently the stopping time is between 3 and 4 a. m.

The number of boys under 16 who, following the practice of the skilled men whom they assisted, worked upon this system of hours, whether the factory was union or nonunion, was 2,209, 44 per cent of the total number scheduled. Of these 2,209 boys, 1,103 worked only in the daytime, and 1,106 worked on an alternating shift, one week by day and the following week by night. These numbers are exclusive of boys who were working in the factories in which the union system prevailed for the men, but which were located in States where the legal hours for children were less than the factory hours. These States were Illinois and New York, the legal limit there for children being 8 hours a day and 48 hours a week, with an entire prohibition of night work. Boys under 16 employed in such factories occasionally violated the law by working the full factory hours, but the practice was not a regular one.

The second union (the American Flint Glass Workers' Union) has for its customary working hours a system somewhat different from that just described, although the actual length of the working week is in each union substantially the same. The system is as follows: On the day shift 9 hours from Monday to Friday, inclusive, with a half day of 4½ hours on Saturday, a total of 49½ hours per week; on the night shift 9 hours, from Monday to Friday, inclusive, and 4½ hours beginning at 12 o'clock Sunday night, a total of 49½ hours. The usual distribution of these working hours is, for the day shift, from 7 a. m. to 5 p. m., with one hour for lunch, but with no "tempos" or rest periods. The night shift shows similar variations in the hours of beginning and closing as does that of the previously mentioned union.

The number of boys under 16 who were affected by and observed these working hours, whether in union or nonunion factories, was 1,253—25 per cent of the total number of boys employed. Of these 1,253 boys, 501 worked on a day shift only and 752 worked on an alternating day and night shift. As before, and for reasons given, these numbers exclude all boys employed in factories in which the above hours of work were observed by the men, but which were located in the States of New York and Illinois, where the legal hours for children are less than the factory hours.

In total, therefore, 3,462 of the shopboys under 16—69 per cent of all employed—worked precisely according to one or the other of the schedules of hours just described. There were 513 additional boys, 10 per cent of the total, the length of whose working week, while not exactly coinciding with either of those schedules, fell within these limits. If this number be added to the preceding, there was a grand total of 3,975 boys, approximately four-fifths of all employed, whose hours of labor were, for the day force, not less than 49½ or more than 50¼ hours per week, and for the alternating force not less than 50¼ to 49½ hours for the day week or more than 42½ to 49½ hours for the night week.

The remaining one-fifth—1,034 boys—whose working hours were either above or below these limits, exhibited several degrees of variation, a few of them extreme. The details of such variations are given in the following summary table.

The following table classifies the total of 5,009 shop boys according to the actual or average length of their working weeks. In the case of those who work only in the daytime the actual week is given; for those who alternate an average has been drawn, this average being one-half the sum of a full night week plus a full day week. Fractions of hours have been disregarded, each entry being for the nearest lowest unit. Thus, the 44-hour group includes all who worked 44 but less than 45 hours per week.

HOURS PER WEEK WORKED BY SHOP BOYS ON DAY FORCE AND ON ALTERNATING FORCE.

Hours per week.	Employees on day force.	Employees on alternating force.	Total employees.	Hours per week.	Employees on day force.	Employees on alternating force.	Total employees.
36	1	2	[a] 3	51	7	86	93
38	27	....	27	52	27	102	129
44	38	....	38	53	12	4	16
45	34	50	84	55	14	28	42
46	56	1,286	1,342	56	5	58	63
47	325	150	475	58	16	....	16
48	8	150	158				
49	544	866	1,410	Total	2,217	2,792	5,009
50	1,103	10	1,113				

[a] The three listed as having worked only 36 hours per week were really working as a three-shift system. This system is so exceptional in the glass industry that no special table is necessary to cover this point.

Thus, if an average week in the case of alternating day and night workers be used as equivalent to the actual week in the case of day workers only, it appears that the instances of extreme variation are very few. Almost 90 per cent of all the persons concerned worked an actual or average week of not less than 46 and not more than 50 hours.

Except for very general purposes, however, the use of the average week in the case of alternating day and night workers is not satisfactory. As the day week and night week are rarely of the same length, and as night work for boys is of especial significance, it is desirable to present more detailed facts regarding this system of working. Therefore two tables are offered. These tables present in detail the facts already presented in condensed form. The length of the week, for both the day and alternating forces, is entered to the next lowest quarter hour, and the alternating force is classified not only according to the average week, but also according to the exact number of hours constituting, respectively, the day week and the night week. The data are classified by States. These tables, taken together, form therefore a complete exhibit of the hours of labor of the shop boys in all the factories scheduled.

BOYS IN FURNACE ROOM WORKING SPECIFIED HOURS WEEKLY.

ALTERNATING FORCE.

Average hours per week.	Exact length in hours of—		Number of persons working specified hours in—									
	Day week.	Night week.	Pennsylvania.	West Virginia.	Indiana.	Ohio.	New Jersey.	Maryland.	Kansas, Missouri, and Wisconsin.	Virginia.	Tennessee, South Carolina, and Georgia.	All States.
35⅝	36	35¼	2									2
45	47½	42½			10							10
45¾	50¼	41¼		40								40
46⅜	48½	44¼	70									70
46⅜	50¼	42½	386	38	254	54	204	50	4	52	64	1,106
46⅝	46½	46¾	70		40							110
47¼	49½	45	42			90	18					150
48⅜	50½	46¼			36		22		10			68
48¾	50	47½	82									82
49	53	45	10	18	70				4			102
49½	49½	49½	322	338	16	76						752
49¾	49½	50	12									12
50¾	55	46½			10							10
51⅝	51	52¼	86									86
52⅛	52	52¼	62		20	20						102
53	53	53	4									4
55	55	55	8									8
55¾	56¼	55¼		20								20
56¾	57	56½			44							44
56¾	58½	55				14						14
Total			1,156	454	500	254	244	50	18	52	64	2,792

DAY FORCE ONLY.

Exact number of hours per week.	Number of persons working specified hours in—											
	Pennsylvania.	West Virginia.	Indiana.	Ohio.	New Jersey.	Maryland.	Illinois.	Kansas, Missouri, and Wisconsin.	Virginia.	New York.	Tennessee, South Carolina, and Georgia.	Massachusetts and Connecticut.	All States.
36	1												1
38½										27			27
44										38			38
45	34												34
46½				47								9	56
47¾							325						325
48	3						5						8
49					43								42
49½	208	178		62	51					2			501
50¼	308	3	23	133	146	342	4	85	37	16	6		1,103
51	7												7
52½	27												27
53	9		1					1	1				12
55	2											12	14
56¼		5											5
58				13								3	16
Total	599	186	24	255	240	342	334	86	38	83	6	24	2,217

The extreme diversity in the systems of working as thus indicated renders difficult a comparison of the several States upon this point. An attempt to present such a comparison in brief form is made in the following table. This table shows for the several States and for the day workers and night workers separately the per cent of boys working less than certain specified numbers of hours per week. As the purpose is to show simply the relative lengths of the working week in the several States for both day and night workers, the alternating force is included in both classes. That is to say, the first part of the table, dealing with day workers, includes both those who worked only on a day force and those who worked alternately at day and night work, whereas the second part deals with the night workers only.

The States are arranged in descending order, 50 hours being used as a standard in the case of day workers and 46 hours in case of night workers.

PER CENT OF BOYS OF DAY AND OF NIGHT FORCE WORKING LESS THAN SPECIFIED HOURS PER WEEK, BY STATES.

Day workers.

State.	Number of persons.	Per cent working less hours than—		
		52.	50.	48.
Illinois	334	100.0	98.8	97.3
New York	83	100.0	80.7	78.3
West Virginia	640	93.3	80.6	......
Ohio	509	90.8	54.0	9.2
Pennsylvania	1,755	93.0	43.5	6.1
Massachusetts and Connecticut	24	37.5	37.5	37.5
New Jersey	484	100.0	23.1	......
Indiana	524	72.3	12.6	9.5
Maryland	392	100.0	......	......
Tennessee, South Carolina, and Georgia	70	100.0	......	......
Virginia	90	98.9	......	......
Kansas, Missouri, and Wisconsin	104	95.2	......	......
Total	5,009	......	......	......

Night workers.

State.	Number of persons.	Per cent working less hours than—			
		50.	48.	46.	44.
Tennessee, South Carolina, and Georgia	64	100.0	100.0	100.0	100.0
Virginia	52	100.0	100.0	100.0	100.0
Maryland	50	100.0	100.0	100.0	100.0
New Jersey	244	100.0	100.0	91.1	83.6
Indiana	500	87.2	84.0	66.8	52.8
Ohio	254	86.6	56.7	56.7	21.3
Kansas, Missouri, and Wisconsin	18	100.0	100.0	44.4	22.2
Pennsylvania	1,156	85.1	57.3	44.1	33.6
West Virginia	454	95.6	21.1	21.1	17.2
Total	2,792	......	......	......	......

HOURS OF LABOR OF FEMALES IN FURNACE ROOM OCCUPATIONS.

The two factories in which females were employed as substitutes for boys in the blow room operated upon identical working systems. Both were bottle factories, both worked at night, and both operated their furnace rooms under the first of the above-described union systems—that is to say, 50¼ hours per week for the day force, and, for the alternating force, 50¼ hours on the day shift and 42½ on the night shift. In both cases the night shift began at 5.15 p. m. and quit at 3.15 a. m. The number of females employed at this work was reported to be 79, all of whom were 16 years of age or more.

At the time of the investigation one girl under 16 was found so employed, but this is believed to be very exceptional.

In conclusion, it is necessary to consider briefly the influence which automatic machinery may be expected to have upon working hours in the furnace room. At the time of the field work of this investigation this was not a matter of importance. Automatic machines were in use in only two factories, and the number of boys under 16 regularly employed by them was so insignificant (less than a dozen in total) that no separation was attempted in the preceding discussion and tables. The machine, however, is rapidly extending its use, and as it does so it results in a steady decrease in the number of boys necessary for the manufacture of a given quantity of glassware. It is not improbable that mechanical devices may entirely eliminate all boy help upon the machine. If the boy does remain his working hours will develop features entirely different from those of the boys in the superseded hand shops. This is an inevitable result due to the different character of the work.

In the first place, although the work of the boy on the machine is not markedly different from that required of him in the hand shop, the personal relation which existed in the hand shop entirely disappears. The boy ceases to be a helper to a man whose speed varies and whose body periodically requires food and rest. The machine proceeds continuously and at the same pace. The boy attendant can obtain rest only when another boy takes his place. Thus in such a factory there must always be more boys than are actually needed for the work at any one time. The more often the boy rests and the longer his rest periods, the larger the total number of boys necessary. At present no uniform system has been adopted: No uniformity exists in the number of shifts, both the two-shift system, each of 12 hours, and the three-shift system, each of 8 hours, being in use. As, however, the number of automatic machine factories scheduled was only two, one of which employed no boys under 16, the arrangement of working hours found can not be considered of permanent significance.

In addition to this direct effect of the automatic machine upon the hours of labor of the boys used in connection with it, it has an equally significant indirect influence upon the other boys in the trade. The automatic machine entered the field as a direct competitor of the hand shop factory, and so strong is the competition becoming that the hand shop is threatened in certain branches of the industry at least. The hand shop, therefore, is forced to consider new methods of meeting this competition. Reduced wages is one method. Another is to operate continuously during the whole 24 hours of the day, substituting three shifts of workers for the traditional two shifts. Already one of the glass workers' unions has accepted the new system as necessary in certain classes of work in which the competition of the two processes is most keen. It is impossible to say at present just how far or how fast this change will extend, but wherever it comes into operation the hours of labor for the boys as well as for the men will necessarily be subject to complete rearrangement. The probability is that the new arrangement will be based on three shifts of 8 hours each, in which will have to be included a lunch period. The working time of each boy will thus probably be in the neighborhood of 7½ hours per day instead of the 8½ to 9 hour working-day in most frequent use at present.

NIGHT WORK IN THE FURNACE ROOM.

Night work is at present an established feature of the furnace room of the glass factory, the department in which practically all the boys are employed. Its present wide extent is due almost entirely to the introduction, some twenty-five years ago, of the continuous tank. With the pot furnace night work was not unknown, but it was rare, being seldom resorted to except in emergencies. With the pot furnace, indeed, the economy of night work was not particularly important. As a single pot was exhausted after an ordinary day's working, to run two shifts of workers would require a double number of pots. The tank, however, was under no such disability. As "filling" and melting could proceed continuously, work at all the ring holes could also proceed continuously; and, as a result, the mechanical equipment necessary for one shift became sufficient for two shifts, and a saving of fuel could be effected, for the furnace must be heated at night whether in use or not. The economy of two shifts, therefore, appealed so strongly that the majority of manufacturers put it into practice. The incentive, moreover, carried over to the pot furnace, and at present many factories with pot furnaces only work at night as well as by day. That night work in the long run is an actual economy under normal conditions is, however, by no means certain. A number of manufacturers having tank furnaces do not run at night, and claim that the loss thereby incurred in fuel and equipment is more than compensated for by the better quality of men and boys securable when day work only is done and the better grade of work done by persons who work only by day.

The present distribution of pot and tank furnaces in the matter of night work is shown in the following table, which also makes a separate distribution for bottle factories and for tableware and shade factories. The situation shown is that existing during the year of the investigation among the 169 factories covered.

GLASS FACTORIES OPERATING AT NIGHT AND FACTORIES NOT SO OPERATING, ACCORDING TO CHARACTER OF PRODUCT AND WHETHER HAVING POTS OR TANKS.

	Establishments having—		
	Only pot furnaces and day tanks.	Only continuous tanks.	Both pot furnaces and continuous tanks.
Flint bottles and beer bottles, jars and insulators:			
Do night work	....	75	9
Do not do night work	8	14	2
Tableware, shades, novelties, and cut-glass blanks:			
Do night work	31	2	9
Do not do night work	17	1	1

From this table the prevalence of night work with continuous tanks is clearly evident: and that the pot furnace is no bar to night work is also evident from the fact that of 48 tableware-shade factories possessing no other than pot furnaces, 31 worked at night.

The introduction and growth of the automatic machine, as is noted elsewhere, has tended to increase the amount of night work in certain branches of the industry. The automatic machine operates every hour of the twenty-four, and in the attempt to meet this competition hand-work factories making the same class of ware are compelled to try every resource. Night work on the old two-shift system proving insufficient, the Glass Bottle Blowers Association in 1910 agreed to a three-shift system of eight hours each in those factories most pressed by machine competition.

Thus it may be said that night work in the glass industry is firmly established, with the machine constantly tending to establish the practice even more firmly. As shown in the above table, of the 169 furnace rooms scheduled, 126 were found to be regularly operating two shifts of workers, one by day and one by night, and of the remaining 43 several were accustomed to do so from time to time, although during the year covered they had limited themselves to day work.

When two shifts are thus operated, however, it does not necessarily follow that the night force is as large as the day force. It will be remembered that the working unit of the furnace room is the shop, and that the number of shops is dependent upon the number of working holes to a furnace, and this upon the number of furnaces. A factory possessing, say, three furnaces may operate all three by day, but only one or two by night. There is no necessary relation. In the night-working factories scheduled it was found that, on the whole, the number of night shops operated was approximately 45 per cent less than the number of day shops, and this may be taken as fairly representative of the whole industry.

Work on a night shift, whether for men or boys, seldom means continuous night work. Weekly, or rarely biweekly, alternation is the rule. If, in any factory, as many shops are operated at night as by day, there is necessarily a complete alternation of shifts. If, on the other hand, a fewer number of shops are worked at night, only a portion of the force alternates, the other portion becoming a permanent day force. The actual personnel of this day force, of course, need not be permanent. A member of the day force may at any time change places with a member of the alternating force, but this is uncommon. If a worker becomes a member of a shop which alternates, it is most likely that he will remain in it indefinitely.

This alternation between day and night work for the members of the night shift affects the shop boy as well as the skilled man. If he is working in a factory where night work is being done and is attached to a shop which regularly works at night, he will normally work half of his time by day and half by night. The only important exception to this rule is in the case of factories located in States which prohibit all night work for children under 16 years of age. At the time of the investigation such laws existed in five States—New York, Ohio, Illinois, Missouri, and Wisconsin. In four of these States the law was observed with considerable strictness. In Ohio, however, the law was in dispute, and, by a large number of establishments, was not even ostensibly observed.

The result of such night work prohibition, in the States where the law was acknowledged and observed with considerable strictness, was the practical cessation of alternation among the shop boys in day and night working factories. The younger boys were either put in shops which worked only by day, or, if put in alternating shops, remained permanently at day work. In the latter case, if the system is strictly carried out, it is insured that no boy under the prohibited age shall work at night; but it is also insured that many of the boys who are just above that age, or who are accepted as being so, shall be confined solely to night work. As alternation ceases, the night force of older boys becomes permanently a night force. The law of New York attempts to avoid this result by providing that, while boys under 16 may work in the day time, no boy under 18 shall work at night.

The working arrangements in regard to the night shift are not the same in all factories. Not only do the working hours of the night shift vary, a point considered in detail in the early part of this chapter, but the number of nights worked per week is not uniform. In 89 factories work was done five nights only per week, Monday to Friday, inclusive; in 36 factories ([a]) the night force works these five full nights and an additional half night, beginning at midnight Sunday; and in one exceptional factory a second half night is worked Saturday evening, making for this factory a working week of five full nights and two half nights, an equivalent in hours of six full nights.

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[a] Including an automatic-machine factory in which the working arrangements are somewhat exceptional, but which, broadly speaking, falls into this group.

The number of boys under 16 years of age who work more or less regularly at night forms a considerable majority of the total number of boys employed in the glass industry. The precise number, however, is difficult of estimation. The reports from the 126 scheduled factories show that 2,792 such boys, or 55.7 per cent of the total of 5,009 normally employed in all these factories, were regularly employed on the alternating shifts and regularly alternated, along with the adult members. This, however, is a minimum number, representing the size of the permanent alternating force of boys, not of the number of individuals who may have done night work more or less regularly during the year. In the first place, this number excludes the night working of boys in New York, Illinois, Missouri, and Wisconsin, where the law prohibiting night work was occasionally, but never regularly, violated. It also excludes the fact that in a furnace room where night work was done by a reduced force there may have been occasional interchange of places between boys in the alternating shops and those in shops operating only by day.

On the whole, however, the above number may be accepted as fairly representative of normal conditions. The manner in which the boys under 16 thus classed as normal night workers were distributed among the States concerned is shown in the following table. This table makes a complete presentation of the working arrangements, so far as concerns night and day work, of the total of 5,009 boys under 16 employed by the scheduled factories. Separation is made between those who, working at night, did so on only five nights per week and those who did so on six nights per week. The States are arranged in order of ascending frequency of night work, as shown in the last column. Kansas, Missouri, and Wisconsin are combined for reasons elsewhere explained, although no night work was found to be regularly done by boys under 16 in any of these States except Kansas.

NUMBER OF BOYS WORKING ON DAY SHIFT AND ON DAY AND NIGHT SHIFT ALTERNATELY AND PER CENT WORKING AT NIGHT.

State.	Total boys.	Boys under 16 years of age working—						Per cent of boys working at night.
		Day only.	Day and night, alternate weeks.					
			Total number.	6 days, 5 nights.		6 days, 6 nights.		
				Number.	Per cent.	Number.	Per cent.	
Illinois	334	334	....	....	....	....	....	....
New York	83	83	....	....	....	....	....	....
Massachusetts	24	24	....	....	....	....	....	....
Maryland	592	342	50	50	100.0	....	....	12.8
Kansas, Missouri, and Wisconsin (a)	104	86	18	8	44.5	10	55.5	17.3
Ohio	509	255	254	154	60.6	100	39.4	49.9
New Jersey	484	240	244	244	100.0	....	....	50.4
Virginia	90	38	52	52	100.0	....	....	57.8
Pennsylvania	1,755	599	1,156	605	52.3	551	47.7	65.9
West Virginia	640	186	454	96	21.1	358	78.9	70.9
Tennessee, South Carolina, and Georgia	70	6	64	64	100.0	....	....	91.4
Indiana	524	24	500	368	73.6	132	26.4	95.4
Total	5,009	2,217	2,792	1,641	58.8	1,151	41.2	55.7

[a] No night work regularly done by boys under 16 in Missouri or Wisconsin.

A discussion of the general question of the effect of night work as such upon the health of children need not be entered into here. The present inquiry into the glass-making industry developed no data of a character to modify in any way the universally accepted medical view that night work, in itself, is almost invariably detrimental to the health and physical well-being of a growing child. In addition, however, to the effects common to all night work there are certain features peculiar to night work in the glass industry which require consideration. Such consideration here, however, will be limited to the one aspect of physical health, the moral aspect of the subject being considered elsewhere.

The appearance of a furnace room at night is very distinctive. The spots of red glare in front of the furnace openings; the semidarkness of the rest of the working space; the glow of the red-hot glass as it is handled and swung; the fantastic play of light and shadow on the persons of the workers—these things combine to make the layman's first impression of nocturnal work in such a place one of weirdness, if not of horror. Nevertheless the work done at night is quite the same as that done in the day. The severity of the boys' work, the speed of their working, and the surroundings under which they work are very little changed by the change from daylight to night. Figures of output for several factories show that the amount of work done on the night shift varies very little from the amount of work done by the same persons when working by day. In some factories the night output is a little larger than the output by day, in others the reverse is true; but in no case is the difference sufficient to make the change in speed seriously noticeable to the working boy.

Thus it may be said that, as far as the work itself is concerned, working at night imposes no additional physical hardship. Such harmful physical effects therefore as may arise from night work must be attributed to other causes. The chief of these are irregular sleep, sleeping in the factory, and the homeward journey in the dreariest part of the night.

As previously pointed out, night work for boys in the furnace room does not mean a continuous working at night. Weekly alternation is the accepted custom, the result of which is that during half of his time the boy may live a normal life. On the other hand, the practice of alternation renders even more difficult one of the most serious problems of night work—the problem of sleep. It means that one week the boy must obtain his sleep in the daytime and the following week in the nighttime. Proper adjustment to varying sleeping periods is not an easy accomplishment for either adults or children. It was the almost unanimous opinion of night foremen and adult glass workers interviewed that this periodic change in the time of sleeping was, at the least, physically undesirable. They agreed that, although it was not possible to trace an ailment to this specific source, they always ''felt better'' when working only by day. Of the same character was the testimony of mothers of boys working on the night shift. And that night work is regarded as ''harder'' by the boys themselves as a class is evidenced by the fact that most factories must offer a higher wage for night work than for day work in order to obtain a full complement of boys.

Those adult workers who expressed themselves as pleased with night work supported their views largely on the ground that, by limiting the amount of sleep, nearly the whole of the daylight following a night of work could be used for the purpose of pleasure. This is a view that appeals to some boys. The night shift quits work usually at 3 a. m. By hurrying to sleep and reducing the sleeping time, the boy will have a large part of the daylight for play, whereas if he works on the day shift he has only the evening darkness in which to have his fun. During the present investigation it was not at all uncommon to find on the street as early as 9 a. m. boys who had worked on the previous night shift and had quit as late as 3 a. m.

A boy working on the night shift must, therefore, first of all, accustom himself to sleep in the daytime; second, he must accustom himself to a weekly change of sleeping periods; and third, when working at night and sleeping by day he must resist the natural desire of the boy to curtail his sleep for the sake of a longer play time. There is a strong probability of there being unsuitable surroundings for daytime sleeping. The majority of shop boys come from homes in which the standard of living is rather low, the houses small, the rooms crowded. If in the larger cities, these houses are usually in the more congested sections, where the street noises are greatest and the street life early astir. Under such surroundings a restful daytime sleep is frequently unobtainable.

The second source of danger to the health of children incident to their working at night in the glass factory arises from the almost universal custom of arranging the hours of labor so that the night shift ends in the very early morning. This happens usually about 3 o'clock, the time when the weather is most severe and the time when the boy, through sleepiness and anxiety to get home, is least likely to consider the guarding of his health. Always he is overheated from his work, frequently in a state of perspiration. Only very rarely does he have extra or sufficient clothing to protect him in the change to the outside temperature. Often, too, he has a long journey home. Very often the factory is well away from the town proper, seeking, as it does, cheaper land and better railroad facilities. In such cases the main approach is almost always along railroad tracks, but local train or street car accommodation is seldom available so early in the day.

The recent extension of interurban electric lines has tended to increase this evil. Boys from the farms, living several miles from the factory, are by reason of electric interurban lines enabled to obtain work, a few factories even offering to pay the car fares of such boys. The car line, however, rarely has an all-night service, and the boys on the night shift, quitting about 3 a. m., must wait for the first morning car, arriving possibly not until 5 or 6 o'clock. This interval of two or three hours the tired boy is naturally tempted to bridge by sleeping in the factory. In one Ohio establishment it was found that several of the boys, in thus waiting for the car, slept in the open beside the tracks.

Even, however, when the boy's home is not beyond walking distance the temptation to sleep in the factory may still be very strong. For not only is the actual length of the homeward journey a hardship, but the character of the road that must be traversed is a matter of almost equal concern, especially if the boy can obtain no company on his way. In one instance a factory is so situated that many of the boys in order to reach their homes must pass through a cemetery; in another the easiest and most-used approach is through a railroad tunnel. Because of these and other things many of the boys interviewed evinced a strong dislike, some a positive horror, of the early morning journey from the factory.

As a result of such causes—the distance to the home, the fear of something along the route, fatigue from the work, unfavorable weather—the boy is often unwilling to return to his home, preferring to sleep in the factory, at least until daylight comes. It was impracticable to ascertain the exact number of boys who indulge in this practice. Some factory managements prohibit it entirely and enforce the prohibition; others, because of their location, offer no reason for the boys not going to their homes. In a few factories, however, sleeping in the factory buildings is a regular custom, and in several others the practice is engaged in more or less frequently. The formal sanction of the head management for such a practice is probably nowhere given, but many foremen do not discourage it. Usually this attitude of the foremen is due simply to good nature; but occasionally business interest may be responsible. For if a boy remains in the factory too long after the ending of one shift he is in a position to be impressed for service on the next shift. As the foreman usually retains his position by virtue of his ability to obtain a certain daily output the temptation to so impress a boy when help is scarce may be too strong to be resisted. Moreover, as the boy has had some three or four hours' sleep between the ending of the one shift and the beginning of another he very often feels refreshed enough to be willing to begin work again.

For sleeping in the factory there are no accommodations whatever. The boy lies upon the floor or upon a pile of boards or boxes. At times, for warmth's sake, he cuddles up beside the leer. He has, of course, no change of clothing and most probably no covering of any kind.

The danger to a child's health inherent in either alternative—journeying home in the night weather, sleeping in or outside the factory—is most palpable, and this fact or custom may be more or less responsible for the more common and more dangerous diseases of the glass workers, diseases of the respiratory organs, that often do not become apparent in a serious degree until many months, or even years, after the original exposure.

OVERTIME WORK IN THE FURNACE ROOM.(a)

In addition to its own harmful effects upon the shopboys the system of operating two shifts of workers, one by day and one by night, makes possible an even more serious evil—that of "double shift" work. It does so by furnishing the occasion whereby a boy may work regularly on one shift and also on the whole or part of the succeeding shift, all within a period of 24 hours. "Double shift" work is, of course, a form of overtime work. Moreover, it is the only form of overtime work among furnace-room boys which is liable to assume serious proportions. Otherwise, indeed, there is little opportunity for a boy to exceed the regular working hours. The work of the shopboys is dependent upon the work of the skilled men—the blowers, the gatherers, the pressers—and these rarely work overtime. Members of the unions never do so, and of the 161

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[a] This discussion of overtime work excludes the two automatic-machine factories which run the full 24 hours every day, but which employ very few boys under 16 years of age.

furnace rooms investigated employing boys under 16, 132 were conducted under union regulations. The remaining nonunion factories were free from such regulations, but in very few cases did their working hours exceed those of the unions, and in only one instance were their established working periods frequently or seriously exceeded. In this one instance the management encouraged a longer work day by bonus payments, and here the working time was regularly from 15 to 60 minutes longer than that ostensibly prescribed. With this exception all the skilled men began and ceased work at regular times, and their assistants, the shopboys, necessarily followed their example.

It is possible, of course, that after their regular work of helping to make glass is finished the boys may be kept at the factory and employed at odd jobs, such as cleaning and sweeping. But the occasion for such work in a glass factory is rather small. Less than half a dozen cases of this form of overtime work came under observation, and none of these was of a serious character.

Also it may happen that the state law may prescribe a working-day for children which is shorter than the established working-day in a factory, and in such case the employment of children for the customary full shift of 8½ to 9 hours becomes, from the legal view-point, overtime work. At the time of the investigation two States—Illinois and New York—were within this category.(a) In these States it was prohibited for persons under 16 to work more than 8 hours a day, whereas the practice of glass-making establishments generally, and of all but three of the establishments within these two States, was to operate their furnaces at least 8½ hours every shift. Of the three excepted factories two had a working-day af 8 hours or less. The other operated most of its plant the full 8½ hours, but to meet the law most easily had provided that two of the furnaces should operate only 8 hours per day. All boys under 16 years of age were ostensibly employed on these special furnaces and on these only. In the remaining establishments within these two States no special provision was made to meet the 8-hour law for children. The full 8½ to 9 hours were worked, and in order to comply with the law it was necessary to use yard help and other laborers to fill out the half hour or hour which the younger boys might not legally work. Under such conditions the temptation is strong to disregard the law and work the younger boys the full shift. On the whole, however, the 8-hour laws were rather strictly observed. An investigation of 118 boys under 16 years of age in Illinois and New York showed that only 18 of them worked a full shift of 8½ to 9 hours on a total of 208 occasions. A number of cases were undoubtedly unscheduled, as

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[a] Ohio, also, since July 1, 1908, after the investigation in that State was finished.

this form of overtime was particularly difficult to detect, but the indications did not point to any considerable abuses.([a])

It may be concluded, therefore, that as long as an establishment confines itself to one working shift per day there is little danger of overtime work becoming a serious abuse. As soon, however, as two shifts of workers are operated in a factory the possibility is introduced for the boy to work "double shift," and this form of overtime work is easily abused. The skilled blower, as has been noted, rarely, if ever, indulges in such double-shift work, the rules of the union and the customs of the trade prohibiting him. But there are no trade rules or customs to prevent a boy working as many hours per day as he and his employer may agree upon.

The exact hours of work in the factories operating two shifts of workers are usually the same for both shifts, namely, 8½ or 9 hours in union factories, and the same or slightly longer hours in the nonunion factories. In almost every instance the day force goes on duty at 7 a. m. and works until 5 p. m., with 60 to 90 minutes for meal and rest periods. The night force has less regular working hours. Most frequently, however, it goes on duty about 5 p. m. and works until 3 or 4 a. m., with 45 to 90 minutes for meal and rest periods. The exact distribution of the working time is largely determined by the blowers, and as night work is generally unpopular it is the preference of the blowers in most factories to reduce the meal and rest periods on the night shift in order to finish as soon as possible. Whatever arrangement is made, however, the afternoon intermission between the day and the night shift is much shorter than the morning intermission between the night shift and the day shift, the former being sometimes as small as 15 minutes and the latter usually as much as 3½ hours. Thus a boy who has worked on the day shift and wishes to work on the night shift has almost no interval for rest, whereas a boy on the night shift who wishes to continue on the following day shift, has 3 or 4 hours in which to recuperate from possible exhaustion. On this account the latter form of double-shift work is more popular and more prevalent.

If a boy works a full double shift he is on duty 20 hours out of the 24, and is actually working 17 to 18 hours. Notwithstanding the physical strain of such long hours, double-shift work is by no means uncommon in certain factories at busy seasons, although it is done much more frequently by the older boys and men than by the boys under 16. The records of one large bottle factory for the early fall of 1907, a very prosperous period in the glass industry, show the following cases of double-shift work, all of the boys concerned being

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[a] This form of illegal overtime is elsewhere considered in more detail as a phase of illegal employment.

16 years of age or over. In the course of two weeks seven shopboys worked six full double shifts each, i. e., worked approximately 18 hours per day for six days out of twelve; four boys worked seven full double shifts each; one worked nine; one worked ten, and one worked double shift every working-day for two weeks. None of these boys was under 16 years of age, but a number were barely 16.

Very often, however, the services of the boy are not required for the full double shift. He may split the extra work with another boy or may work only a portion of the second shift. The most prevalent form of this practice is that of "doubling up" Friday night. This consists in working the full Friday night shift and one-half or one-quarter of the Saturday shift. As no work is done Saturday night or Sunday an opportunity is then given for recuperation.

The practice of "doubling up" is encouraged in many factories by the offer of double pay for extra time. A boy who works all night Friday and half of Saturday will be paid for two days' work, or if he only works until 10 o'clock Saturday morning, will be paid for a day and a half work. This high rate of pay, together with the possibility of working Friday night, appeals strongly to the school boys in several localities. They are forbidden, either by the law or by their parents, to work during actual school time. But they may work Friday night and Saturday, and the glass factory is one of the few places where such an arrangement of working time can be made. The physical strain of double shift work on such boys is particularly acute.

Of the 161 scheduled factories in which boys under 16 years of age were employed in the furnace room, 119 operated a night force of employees as well as a day force. Of the 3,975 boys under 16 who were normally employed in these 119 factories and who were thus in a position to work double shift, 1,292 were especially investigated. It was found that of these 1,292 boys, 120 had worked full or partial double shift at least occasionally during the preceding year. The total number of separate occasions in which double shift had been worked by all these boys was 1,645, divided according to age as follows:

NUMBER OF CASES OF DOUBLE-SHIFT WORK BY BOYS UNDER 16 YEARS, BY AGE.

Age.	Number of boys working double shift.	Number of cases of double-shift work.	
		Total.	Average per boy.
12 years	2	35	17.5
13 years	15	124	8.3
14 years	53	734	13.8
15 years	50	752	15.0
Total	120	1,645	13.7

It was not practicable in every case to ascertain the exact length of time worked on double shift. At least 200 ([a]) of the cases entered, however, represent occasions of full double-shift work, i. e., 17 to 18 hours per day, and in a large number of the other cases the boys concerned worked one full shift and a half.

The extent to which double shift is worked varies greatly from factory to factory and from State to State, depending in the first instance upon the character of the factory management and in the second instance upon the character of the state laws. Some managements do not permit double shift work, even when it is legally permissible, others permit it even if it be illegal, and a large number of the cases cited above occurred under circumstances that rendered them in direct antagonism to the law.

From the legal point of view the States in which the 119 night-working factories were located may be divided into three groups. The legal references upon which the grouping is made are to the state laws as they existed at the time of the investigation and solely as such laws affected the glass industry within the particular State.

First group.—New York, Ohio, Illinois, Missouri, and Wisconsin by limiting the working day and by prohibiting night work from at least 7 p. m. to 6 a. m. rendered double shift work for children legally impossible.

Second group.—New Jersey, Pennsylvania, Maryland, and Indiana, although not prohibiting night work, had established a maximum working day, 9 hours (for night working children) in Pennsylvania, and 10 hours in the three other States. As practically all the glass factories in these States operated 8½ to 9 hours there was thus left a margin of ½ to 1½ hours between the factory day and the maximum day which might be legally used on another shift. But under such a law the working of a full double shift, or even a shift and a half, was legally impossible.

Third group.—Finally there were five States—West Virginia, Virginia, South Carolina, Tennessee (up to Jan. 1, 1908), and Georgia—in which there was a total absence of any effective laws preventing double-shift work, provided the child was above a certain established age. In no case was the age established higher than 14 years.

The following table classifies the number of instances of double-shift work according to this method of state grouping:

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[a] This is a bare minimum, cases of which there was absolute certainty.

AMOUNT OF DOUBLE-SHIFT WORK BY SHOPBOYS UNDER 16 YEARS, BY STATE GROUPS.

	Number of boys scheduled.	Boys working "double shift."		Number of cases of double-shift work during year.	
		Number.	Per cent.	Total number.	Average number per person working double shift.
Group 1.—Night work absolutely prohibited and maximum working-day fixed:					
New York	321	10	3.1	46	4.6
Ohio					
Illinois					
Missouri					
Wisconsin (a)					
Group 2.—Night work not absolutely prohibited, but maximum working-day fixed:					
New Jersey	735	72	9.8	885	12.3
Pennsylvania					
Maryland					
Indiana					
Group 3.—No effective laws regarding night work or length of working-day:					
West Virginia	236	38	16.1	714	18.8
Virginia					
Georgia					
South Carolina					
Tennessee					
Total	1,292	120	9.3	1,645	13.7

[a] No cases of double shift were found in Wisconsin.

This table makes evident the great importance of the subject of "double-shift" work by boys under 16. Taking the country as a whole, it appears that about one boy in every eleven (9.3 per cent) worked double shift during the year covered on an average of nearly 14 occasions. For group 1, covering those States which absolutely prohibited night work for children, the percentage of boys working double shift and the average number of occasions per person are both reasonably small. For group 2, where night work itself was not entirely prohibited, the figures rise suddenly; one boy out of ten worked double shift on an average of over 12 occasions. Finally for group 3, States which were without effective child-labor laws, the proportion of children working double shift rises to almost one in six and the average number of occasions worked to nearly 19.

The entries in the above table, as well as all the preceding data, were derived entirely from personal inquiry and investigation among the boys themselves and their families. This is apparently the only primary and comprehensive source of information upon the subject of double-shift work. There is, however, a secondary source, which offers accurate information upon one phase of the subject. This source is the factory pay roll. Every factory pay roll shows the amount of time worked by, as well as the amount of money due, each individual employee. It does not show, or at least very rarely, the exact time worked per day. Thus, if a boy worked double time three days in the week and did not work at all the other three days, the pay roll, if a weekly pay roll, would simply show a full week's work. If, however, an employee, besides working his regular hours, should also work overtime, this would distinctly appear on the books, or, reversing the case, if a factory's normal working week is 60 hours and the entry on the books shows that an employee has been paid for 70 hours work during the week, it is clear that the net weekly overtime is 10 hours. Actually, of course, his overtime work on particular days may have totaled much more than 10 hours, the excess on some days being balanced by idleness on others. This fact the pay roll does not show. It shows simply what may be called weekly overtime, and in every case this is a minimum amount. It is to be noted, moreover, that the longer the pay roll period the greater the chance of daily overtime being balanced by idleness. Thus, the fact that approximately one-half of the factories scheduled pay biweekly or semimonthly instead of weekly tends strongly to reduce the amount of overtime shown on the pay rolls.([a]) Another factor having the same tendency is the unfortunate system followed by a few factories of paying for all overtime immediately in cash, and not making entries of such matters on their books. The aim of this is, of course, to avoid such legal penalties as may have been provided by the State for allowing children to work overtime.

With these explanations of its weaknesses the following summary table of overtime work as shown by the factory books will still be suggestive. It is made entirely from the pay rolls of the several establishments, all pay rolls of a longer period being reduced to a weekly basis. Only those boys have been included in the table who are employed in factories which operate both night and day shifts. As any kind of overtime work among furnace room boys is practically impossible in factories which operate only by day, it would not be pertinent to include the workers in such factories.

OVERTIME WORK OF BOYS UNDER 16 YEARS IN A SINGLE REPRESENTATIVE WEEK AS SHOWN BY THE PAY ROLLS, BY AGE.

	Under 14 years.	14 years.	15 years.	Total, all ages.
Total number of boys	180	1,161	1,540	2,881
Number working weekly overtime	6	29	47	82
Per cent working weekly overtime	3.33	2.49	3.05	2.85
Total hours weekly overtime	18.1	101.0	203.9	323.0
Average hours weekly overtime	3.0	3.5	4.3	3.9

The chief points to be noted in this table are, first, that nearly 3 per cent of the boys on the pay roll worked more than the regular number of hours per week; that is to say, worked both on the day and night shift on some particular day; and, second, that this average weekly overtime was 3.9 hours, which is almost a full half shift.

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[a] The exact figures are, out of 179 factories, 90 factories pay weekly, 88 pay biweekly or semimonthly, and 1 pays monthly.

In supplement of the preceding tabular presentation of exact data on overtime work the following excerpts from the original field reports are of interest as showing the exact situation in several factories where overtime work is more or less frequent:

Factory No. 1, New Jersey.—Overtime work of boys under 16 is very common; six out of the fourteen boys scheduled so worked. Generally not more than two hours are worked on the second shift, but one boy at least worked a full double shift on several occasions. Among the boys over 16 the practice of full double-shift work is very common.

Factory No. 2, Pennsylvania.—Double-shift work is not required, but it is encouraged when help is scarce. Such scarcity usually occurs in May and June and is due to the heat, which is rather severe in this locality.

Factory No. 3, Virginia.—Double-shift work is rather frequent, but in nearly all cases it is by boys over 16.

Factory No. 4, a Southern State.—Nearly every boy scheduled was accustomed to work double shift one, two, and sometimes three days out of each week. The boys are almost always anxious for the opportunity of doing double-shift work as they are paid double in such cases. For one-quarter of a day extra time they receive the regular pay for one-half a day. Very often the boys do not know they are going to work overtime and bring only enough dinner for the noon hour. When this happens the management furnishes supper. Three boys under 16 worked double shift for several days in succession. During this period they never left the factory, but would sleep in the packing room, and at most would get four hours' sleep every night.

Factory No. 5, Virginia.—It is rather a common custom here for boys to double up Friday night; that is, work all the Friday night shift and half or all of the Saturday shift. Such work is not permitted the other days of the week, as it is found that a boy after working double shift is too exhausted the following day to do satisfactory work.

Factory No. 6, Ohio.—Double-shift work is not popular among the boys; a few will occasionally work on extra shift and the blowers sometimes ask the boys to do so. But there is no evidence that any special urging or compulsion is employed. The parents of the boys are all opposed to extra-shift work, as they believe it is too exhausting for children.

Factory No. 7, New Jersey.—Overtime work or double-shift work is done occasionally by boys under 16, the extra period of work varying from one to three hours. Older boys, however, very frequently work full double shift.

Factory No. 8, New Jersey.—There are about six boys under 16 who while on the day shift work on the average three extra night shifts every other week. All extra work is paid for immediately in cash.

Factory No. 9, New Jersey.—At this plant fourteen boys under 16 were investigated. Nine of these are in the habit of working entire extra turns (turn equals one-half of a shift) during a fire. Some of the boys average one or two nights extra a week during rush periods. Usually it is the ignorant boys and the children of the recently arrived immigrants who indulge in the practice. Sometimes two boys take turns of thirty minutes each on these extra shifts, and in such cases each boy is paid for a full night's work. The rate of pay for extra turns is on the "bargain basis;" that is, each boy is bargained with separately.

Factory No. 10, New Jersey.—One boy worked twelve shifts extra in the six or seven weeks preceding Christmas, making on an average two extra full shifts per week and receiving pay for them at the same rate as for regular work. The extra shifts are made by working the regular day shift, continuing during the night shift following, and going on with the regular shift next day. This boy can not read now and can write his name only with much labor. He is of a sallow color, is lacking in vitality, and is very nervous. He is now 15 years of age and has been in the glass factory since he was 9.

In considering the information upon double-shift work presented in this chapter it is important to remember that the period covered by this study was in considerable part one of serious depression in the glass industry. It was not practicable to make a detailed study of such work during previous years of more prosperous trade, but sufficient data was gathered to warrant the statement that during the busy years prior to the depression of the winter of 1907 double-shift work was several times more frequent than it was during the year scheduled. This conclusion is based on an examination of numerous pay rolls, information supplied by managers, foremen, and blowers, and statements of the boys themselves and of their families. The pay roll of one large representative establishment for one of the early fall months of 1907 shows that double-shift work was at least three times as frequent as it was during any single month from then up to the end of the "fire" in June, 1908.

That double-shift work increases very rapidly and more than proportionately with increased business is further evident from a study of the causes of such work. The prime cause is the scarcity of boy help. This scarcity may result from the peculiar conditions of a factory's location or from the general business conditions at the time. Considering first the matter of local conditions it is to be noted that some few glass factories are of such isolated location that each must depend on its immediate community for its supply of unskilled labor. If, therefore, all the available labor is employed under normal conditions, the absence, even the very temporary absence, of a few shopboys from the factory will be very seriously felt. Similarly the coming of the warm spring months often causes a scarcity of boys, young and old. This is particularly true in factories employing older immigrants at this work. With the coming of the open season many of these people, especially the Italians, desert the glasshouse for railroad building and other outdoor work. This exodus leaves vacancies in the factory which the management is tempted to fill by asking or at least allowing the remaining boys to work double shift. As the younger boys are less able to obtain other work it is they who most often constitute this remainder.

In some cases the local conditions which favor scarcity of boy help and thus double-shift work are brought about, or at least encouraged, by the glass factories themselves. Such a policy has its chief example in a single, but rather important, establishment. In this case the management for ulterior reasons has fostered conditions that tend toward exploitation of boy labor. The factory was located in a rather inaccessible spot, labor imported, and a community formed which was and is directly dependent upon the glass factory for its life. Living and working conditions for the unskilled laborers are very unfavorable, and as a result the imported labor is mostly of a very low immigrant type. Families with a large number of boys were selected in advance and the fathers given work on the understanding that their children should be put into the factory. In such a community boy labor is almost immobile. The blowers are paid on a bonus basis and thus encouraged to higher speed. If a shop has to stop because of the absence of a boy the management does not need to use personal compulsion to make a regular boy work the extra shift. The blower, anxious for his bonus, will almost certainly use his influence, and the cupidity of thrifty, ignorant parents, as well as of the boys themselves, can be counted upon to furnish any further inducement that may be necessary. In this factory it was found that double-shift work was carried to extreme lengths.

More important, however, than local conditions as a cause of double-shift work is business prosperity. Scarcity of boy help may be caused by local conditions, as has been noted, and may exist when business conditions are bad. Generally speaking, however, the reverse is true and the scarcity of boys is greatest and double-shift work most common when business is most favorable. In a period of slack trade boy help is plentiful and most employers have little difficulty in getting a full complement of boys for each shift. The work is not skilled and almost any one can be taught his duties within a few hours. When, however, general business conditions are favorable, boy help is not only scarce, but it is more independent and harder to hold. At such a time employers are naturally anxious to lose no time and if the place of one boy is vacant, the temptation is very strong to ask, or at least permit, another boy to fill such vacancy by working double shift. The double-shift system can not be used as a regular system of work. No boy or man can stand the physical strain of working 17 or 18 hours every day for any length of time. But some of the more hardy ones can endure it for several days in succession and others can work the whole of one shift and a portion of another.

Scarcity of boy help may, therefore, be regarded as the immediate motive of the double-shift practice, but it is the "shop system" of work in the furnace room that renders such motive so impelling to the employer. In the blowing of bottles, for instance, the usual make-up of the "shop" is three skilled blowers and three boys—a mold boy, a snapping-up boy and a carrying-in boy—and the three blowers are so dependent on the three boys that the absence of even one boy will cripple the shop so seriously that work will be suspended. The absence of a boy, therefore, does not mean the simple loss of one boy's labor, a comparatively small matter; it means the loss of the whole shop's labor. If the factory is operating only a day shift, the impossibility of securing a substitute for an absent boy must be made the best of without undue cavilling. If, however, the factory operates both a day and a night shift the absence of a boy from one of the night shops can so easily be remedied by using one of the regular day boys that the temptation to do so is very strong. Particularly is this the case when some of the boys are anxious, as they usually are, for an opportunity of earning extra money, or have parents desirous of having them do so. As a rule, the factory manager prefers older boys or men for this double-shift work, as they stand the strain better, but if the older boys are not obtainable, younger ones are preferable to none.

Double-shift work for children has never been defended. Employers, even those who avail themselves of the practice, generally condemn it as bad, and regret what they claim to be its necessity. From a business standpoint, the employer prefers to have a full complement of boys for each shift. There is no economy in having a boy work on two shifts. The employer pays for extra work at the same rate at least as he pays for regular work and usually at a considerably higher rate. In the second place, double-shift work reduces the workers' efficiency. A boy who has undergone the strain of double shift one day is less capable and careful for several following days than he otherwise would have been.

Concerning the effects of double-shift work upon the physical well-being of children, little need be said. To work a full double shift means a presence in the factory of at least 20 hours out of the possible 24 and an actual working period of 17 to 18 hours. To work a shift and a half means 15 hours presence in the factory and 13 to 14 hours of actual work. That such long hours entail a tremendous strain on the physical and nervous vitality of a child is self-evident, even if such double-shift work is done only occasionally. During the course of the investigation there were found two cases of recent death, both children, which could be directly attributed to exhaustion due to double-shift work in the furnace room.

As further evidence, there may be cited the attitude of glass blowers toward the work of the furnace room. The blower regards his work as physically severe; and it is so, not because of the severity of the individual operations, but because of their accumulation and because of the conditions under which the work is performed. As a result, he has reduced his hours of labor until at present he limits himself to an 8½ or 9 hour working-day and strictly shuns all overtime work. So far as most features of the work are concerned—the overheated air, the constant movements, the regular lifting of weights, etc.—the work of the shop boy is exactly comparable with that of the blower. If, therefore, the body of the adult blower requires a strictly limited working-day, it would seem, certainly, to follow that the body of the boy should make the same demand.

CHAPTER V.

EARNINGS IN BOYS' OCCUPATIONS IN THE FURNACE ROOM.

CHAPTER V.

EARNINGS IN BOYS' OCCUPATIONS IN THE FURNACE ROOM, AS SHOWN BY THE PAY ROLLS.

INTRODUCTION.

The information upon hours of labor and earnings in boys' occupations in the furnace room for presentation in this report was obtained directly from the pay rolls of the 169 establishments concerned. In every factory visited a copy of the pay roll was made for each woman and child employed, and for such men as were employed in occupations with women and children. The data obtained for each individual covered these points: (1) The amount of money received during the pay roll period; (2) the number of hours worked to obtain that amount; and (3) the rate of pay—if a time worker, the daily or weekly rate and the number of hours constituting such a day or week; if a piece worker, the rate per piece for the article or articles handled, and the amount earned during the period. When the pay roll was for a longer period than a week, as it was in approximately one-half of the factories, the data were reduced to a weekly basis, in order that all the information might be easily comparable. The pay roll period covered by these data was, as a rule, the one just prior to the investigation by the agents of the Bureau late in 1907 or in the first half of 1908. Care was taken, however, that the period selected should be one when the factory was working full time and approximately the normal number of employees was at work.

The facts regarding hours of labor and earnings thus collected are presented in the following pages for those of the individuals concerned who were engaged in the so-called "boys' occupations" of the furnace room. The corresponding data for the employees of the finishing department and leer room will be presented later (Chapters XIV and XV), following the description of the work done in those divisions.

In total there were scheduled 179 factories, of which number 169 had furnace rooms, and thus employed persons at boys' occupations. Of the persons so employed, information on hours of labor was obtained for 5,009 boys under 16 and 79 females and has been presented in the preceding chapter; that on earnings includes 3,615 boys under 16 and 67 females and is presented in the following pages.

The detailed tabulations of the data in regard to hours and earnings in the glass establishments included in this investigation are presented at the end of this report. (Tables VI to X.)

CLASSIFIED FULL-TIME WEEKLY EARNINGS.

The wages for boys in the furnace room are by no means uniform, even for individuals of the same age. In one factory boys under 16, and even a few of 17 and 18, were found working for as low a wage as 39½ cents a day, whereas, in another factory not far distant boys no older than these were receiving as much as $2 a day. The fact of this variation and the reasons therefor will be commented upon later. This summary will seek to show only, and for the industry as a whole, the absolute wage amounts for which boys were employed and their actual earnings during the pay roll week covered in the several cases.

The first table presents the essential facts regarding wage rates, by classifying within dollar groupings the several individuals concerned according to the full-time weekly earnings of each. The term "full-time weekly earnings" is practically an equivalent of weekly wage rates, but the presence of a few pieceworkers prevents the use of the latter and simpler term. The earnings of a pieceworker during a fixed period can not be spoken of as a rate, for it is subject to periodic variation. Thus the term "full-time weekly earnings" is employed to cover both types of workers. Practically, the number of boy pieceworkers in the furnace room is so small, and the variations in their full earnings so slight, that their existence need hardly be regarded in a general discussion, and the term wage may be used, and frequently will be used, as if all furnace-room boys were working on a time rate basis.

CLASSIFIED FULL-TIME WEEKLY EARNINGS OF EMPLOYEES IN BOYS' OCCUPATIONS IN THE FURNACE ROOM.

Full-time weekly earnings.	Males under 16 years.		Males 16 years and over.		Females 16 years and over.	
	Number of persons.	Per cent.	Number of persons.	Per cent.	Number of persons.	Per cent.
Under $2						
$2 to $2.99	35	1.0	4	(a)		
$3 to $3.99	348	9.6	142	1.6		
$4 to $4.99	1,081	29.9	717	8.1	8	11.9
$5 to $5.99	963	26.6	1,522	17.2	[b] 55	82.1
$6 to $6.99	1,013	28.0	3,351	37.9	4	6.0
$7 to $7.99	90	2.5	1,719	19.4		
$8 to $8.99	61	1.7	731	8.3		
$9 to $9.99	16	.5	435	4.9		
$10 to $11.99	8	.2	196	2.2		
$12 to $13.99			29	.3		
$14 and over			6	.1		
Total	3,615	100.0	8,852	100.0	[b] 67	100.0

[a] Less than one-tenth of 1 per cent.

[b] Including 1 female under 16.

Corresponding data regarding females are given here, as in some of the following tables, for the purpose of completeness. The presence of such persons in the furnace room, however, is not considered in the text, partly because their earnings and wages present no unusual features and partly because the mere employment of females in boys' occupations is of such significance that it is given a detailed study in another section, wages being included in that study as well as the other circumstances of employment.

From this table it appears that of the 3,615 furnace-room boys under 16 years of age, a small number, 35, were working for a wage of less than $3 a week, and, at the other extreme, a few of the most fortunate, 24, for as much as $9 a week, but that the great majority, nearly 85 per cent of the total, were almost equally distributed in the three groups included between $4 as a minimum and $6.99 as a maximum. Thus the usual, as well as the median, wage for such boys may be said to lie between $5 and $6 a week, probably nearer the latter amount. For boys of 16 and over the wage rate is shown to be somewhat higher. Of the 8,852 scheduled, almost 75 per cent received for a full week's work more than $6 and approximately 16 per cent received $8 or more.

FULL-TIME AND PART-TIME WORKERS.

The foregoing figures, to repeat, represent the full weekly earnings of the individuals concerned, the amounts received under the most favorable conditions of regular employment. Some of them did work full time, and in consequence received the wages above attributed to them. Others failed to work full time and thus failed to receive their full wages. The number of the first class of full-time workers and the degree in which those of the latter class fell short of working full time may be shown as follows, the details being omitted for those working less than three days a week:

NUMBER OF DAYS WORKED PER WEEK BY EMPLOYEES IN BOYS' OCCUPATIONS IN THE FURNACE ROOM.

Number of days worked per week.	Males under 16 years.		Males 16 years and over.	
	Number.	Per cent.	Number.	Per cent.
Full time, 6 days	1,592	44.1	3,783	42.7
5 days and less than 6 days	763	21.1	2,046	23.1
4 days and less than 5 days	492	13.6	1,378	15.6
3 days and less than 4 days	413	11.4	830	9.4
Less than 3 days	355	9.8	815	9.2
Total	3,615	100.0	8,852	100.0

There were therefore 56 per cent of the males under 16 and 57 per cent of the males 16 and over who failed, in varying degree and for various reasons, to work the full week of the factories concerned and thus did not derive the full benefit of their wage rates, whether time or piece.

CLASSIFIED ACTUAL WEEKLY EARNINGS.

The full effect of lost time during a typical week upon the earnings of furnace-room boys is shown in the following table. This table classifies all the persons concerned according to their actual earnings during the selected week, in the same manner as the first wage table classified them according to their full or maximum earnings. Those persons who did work full time occupy, of course, the same position in the present table as they did in the table showing full-time weekly earnings (p. 126). The others fall into lower earnings groups, according to the degree in which they fell short of full-time work.

CLASSIFIED ACTUAL WEEKLY EARNINGS OF EMPLOYEES IN BOYS' OCCUPATIONS IN THE FURNACE ROOM.

Actual weekly earnings.	Males under 16 years.		Males 16 years and over.		Females 16 years and over.	
	Number of persons.	Per cent.	Number of persons.	Per cent.	Number of persons.	Per cent.
Under $2	265	7.3	389	4.4	2	3.0
$2 to $2.99	351	9.7	421	4.8	1	1.5
$3 to $3.99	555	15.4	777	8.8	2	3.0
$4 to $4.99	949	26.2	1,295	14.6	20	29.8
$5 to $5.99	830	23.0	1,753	19.8	[a] 39	58.2
$6 to $6.99	570	15.8	2,048	23.1	3	4.5
$7 to $7.99	62	1.7	1,230	13.9		
$8 to $8.99	22	.6	361	4.1		
$9 to $9.99	10	.3	392	4.4		
$10 to $11.99	1	(b)	152	1.7		
$12 to $13.99			32	.4		
$14 and over			2	(b)		
Total	3,615	100.0	8,852	100.0	[a] 67	100.0

[a] Including 1 female under 16 years of age. [b] Less than one-tenth of 1 per cent.

The items of this table show the actual situation among the furnace-room boys as it existed in a representative pay period at the time of this investigation. On the basis of these actual earnings, 265 of the boys under 16 fall into the "under $2" per week class as contrasted with the 35 who worked for a wage of under $2; only 33 actually earned $8 or over, as compared with 85 whose rate was that much; and the median earnings drop down well below $5 a week. For males over 16 the changes are in approximately the same proportion.

Comparison in regard to actual and full-time weekly earnings is made easier by means of the next table, which presents the facts of the first two tables in parallel columns and adds corresponding columns showing the cumulative percentages of the figures to be compared.

COMPARISON OF CLASSIFIED ACTUAL AND FULL-TIME WEEKLY EARNINGS OF EMPLOYEES IN BOYS' OCCUPATIONS IN THE FURNACE ROOM.

Earnings group.	Males under 16 years.				Males 16 years and over.			
	Number.		Cumulative percentage.(a)		Number.		Cumulative percentage.(a)	
	Actual earnings.	Full earnings.	Actual earnings.	Full earnings.	Actual earnings.	Full earnings.	Actual earnings.	Full earnings.
Under $2	265	....	7.3	....	389	....	4.4	....
$2 to $2.99	351	35	17.0	1.0	421	4	9.2	(b)
$3 to $3.99	555	348	32.4	10.6	777	142	17.9	1.6
$4 to $4.99	949	1,081	58.7	40.5	1,295	717	32.6	9.7
$5 to $5.99	830	963	81.6	67.1	1,753	1,522	52.4	26.7
$6 to $6.99	570	1,013	97.4	95.2	2,048	3,351	75.5	64.8
$7 to 7.99	62	90	99.1	97.6	1,230	1,719	89.4	84.2
$8 to $8.99	22	61	99.7	99.3	361	731	92.3	92.5
$9 to $9.99	10	16	100.0	99.8	392	435	97.9	97.4
$10 to $11.99	1	8	(b)	100.0	152	196	99.6	99.6
$12 to $13.99	....	....	....	....	32	29	100.0	99.9
$14 and over	....	....	....	....	2	6	(b)	100.0
Total	3,615	3,615	....	....	8,852	8,852	....	....

[a] Per cent earning no more than upper amount of specified group.
[b] Less than one-tenth of 1 per cent.

The financial rewards of boys' work in the furnace room have been presented in absolute amounts and for the industry as a whole in the preceding section. Considerable variations were there indicated to exist not only in the actual earnings of boys but in their full weekly earnings. The causes, both actual and possible, of these variations will now be examined. Attention, however, will be limited to variations in full earnings or, what is almost an equivalent, wage rates, this analysis being primarily a comparative one and full earnings or wage rates offering a more secure basis for comparison than do actual earnings.

Among furnace-room boys age is decidedly the most important single factor influencing variations in the wage rate. Next in importance is that of factory location. Other factors, such as race, occupation, character of product, and even individual efficiency are of minor significance.

EARNINGS, BY OCCUPATION.

The usual glass manufacturer in hiring for "boys'" occupations in his furnace room considers, first, the age of the applicant, grouping him roughly as child, youth, or adult, and paying him according to the local conditions affecting wages for persons of the group into which the boy falls. Sometimes such conditions may be extremely local, and thus may arise different wage levels in factories not far apart. Sometimes, too, the mere whim or custom of the employer may result in a somewhat higher scale being paid in his factory than in an immediately adjacent factory.

Rarely, however, does the prospective occupation of the boy affect the amount of the offered wage. A few factories offer different pay for different occupations, but the number of such factories is small, and the presence of such a scale usually involves the matter of age, older boys being preferred for certain occupations in which, therefore, the wage is higher. It is not uncommon to find a factory where, broadly speaking, carrying in is done by adults, cleaning off by young men, and mold tending and snapping-up by boys under 16, with a corresponding decrease of wage from group to group. The difference, however, is primarily due to age, not to occupation. Each of the boys' occupations has certain requirements and possesses certain advantages and disadvantages not possessed by the others, but the difference is never sufficient to prevent easy interchange of workers. In the majority of factories, indeed, alternation of occupations is common, being enforced or at least allowed, in order to relieve the strain of constant application to one position. The mold boy and snapping-up boy are the ones most frequently affected by such alternation, but carrying-in and even cleaning-off may also be affected.

There is only one occupation of the furnace-room boys which is in any degree distinguished from the others in the matter of wage. This is the occupation of machine tending. The machine boy, meaning by this term the boy employed on the ordinary blowing and pressing machine, occupies among furnace-room boys a somewhat peculiar position. His work is different from that of the hand-shop boy, more intense and requiring rather more strength and nervous energy. Moreover, his position is fixed. Not only does he rarely alternate with the other boys, even in factories where alternation is the rule, but he rarely changes from one occupation to another. If he starts as a machine boy, he is liable to remain a machine boy, while a worker in a hand shop may in the course of a little time fill several different positions. His work, therefore, having rather higher requirements and involving more strain, especially as machine work usually induces to greater speed, the machine boy tends to receive a somewhat higher rate of pay than the other boys. Age for age, however, the difference is not very great. For the machine a well-grown, well-formed boy is preferred, and thus the difference in wage may be due to physical development, an equivalent among younger boys to an increased age.

The automatic machine practically introduced a new series of boys' occupations, which so far are much better paid than the work in the hand shop or on the ordinary blowing and pressing machine. But at the time of the investigation so very few machines of the automatic type were in use, and the number of boys employed so small, that no safe deductions as to wages of automatic-machine boys can be made.

Excluding the automatic machine, therefore, it may be said that, on the whole, specific occupation among furnace-room boys does not influence wages to any considerable extent. This is indicated in the following table, which shows, for all factories scheduled, the average hourly earnings in each of the boys' occupations. The data for the bottle-jar branch of the industry are necessarily kept separate from those for the tableware-shade branch because of the lack of identity in occupations.

AVERAGE HOURLY EARNINGS IN BOYS' OCCUPATIONS IN THE FURNACE ROOM.

MALES UNDER 16 YEARS.

Bottles and jars.			Tableware and shades.		
Occupation.	Number of persons.	Average wage per hour.	Occupation.	Number of persons.	Average wage per hour.
Mold boy	567	$0.112	Mold boy	82	$0.119
Snapping-up	988	.105	Sticking-up	265	.121
Carrying-in	517	.102	Carrying-in	478	.102
Cleaning-off	143	.108	Cleaning-off	138	.124
Machine boy	74	.123	Cracking-off	97	.107
Automatic-machine tender	1	.273	Carrying-over	90	.099
Miscellaneous	25	.074	Crimping	51	.133
			Machine boy	58	.130
			Miscellaneous	41	.101
Total	2,315	.107	Total	1,300	.112

MALES 16 YEARS AND OVER.

Bottles and jars.			Tableware and shades.		
Occupation.	Number of persons.	Average wage per hour.	Occupation.	Number of persons.	Average wage per hour.
Mold boy	1,695	$0.135	Mold boy	162	$0.130
Snapping-up	1,865	.131	Sticking-up	586	.135
Carrying-in	1,850	.140	Carrying-in	510	.121
Cleaning-off	536	.134	Cleaning-off	302	.130
Machine boy	472	.145	Cracking-off	227	.120
Automatic-machine tender	142	.210	Carrying-over	83	.125
Miscellaneous	26	.138	Crimping	131	.143
			Machine boy	115	.135
			Miscellaneous	150	.134
Total	6,586	.138	Total	2,266	.131

Among boys under 16, the only marked variations are for automatic-machine tending and for the group of miscellaneous occupations in the bottle-jar branch of the industry. The extraordinarily high rate for the first is accounted for by the fewness of the persons engaged therein, by the novelty of the work, and by short hours, which result in a high hourly rate. The low rate of pay for the few boys in miscellaneous occupations is accounted for, in turn, by the fact that it includes a few water boys and casual workers. Crimping exhibits a slightly higher rate than the other tableware-shade occupations, due chiefly to the fact that crimping is limited to a few hand lamp-chimney factories where the wage levels are somewhat high. Machine tending, for the reasons given in a preceding paragraph, is indicated as being the best paid of the familiar boys' occupations; the others, indeed, show extremely little variation from an average of approximately 10½ cents an hour.

EARNINGS, BY RACE.

Race has even less effect upon wage than has occupation. No agreement exists among employers upon the point of racial efficiency. The most contradictory opinions were expressed, preferences often being nothing more than prejudices. Observation seemed to show, however, that there were no marked differences in efficiency among the boys of the several races. Discrimination was sometimes made against certain races, and occasionally this resulted in some wage discrimination. Such instances, however, are rare. The colored boy, for instance, is never allowed to work at the occupation of cleaning-off, but it rarely happens that this fact in itself causes his wage to be lower than that of the white boy in the same factory who may do cleaning-off. Again, the Italian, the Slav, and the Greek are contemned by most employers, or at least by the hiring foremen, as "Polacks" or "Hunkies," but it is very uncommon for this dislike to take the active form of rate cutting, and it is impossible that such a cutting could be serious or of long continuance. An employer may prefer boys of a certain race, but if he must employ others, as he nearly everywhere must, to discriminate in wage would provoke petty jealousies and dissatisfaction, with a resultant loss of efficiency.

EARNINGS, BY LOCALITY AND STATE.

Locality, on the other hand, is a factor of very great influence in wage variation. The supply of boy labor, particularly that of the younger boys, is, on the whole, comparatively immobile. The existence of high wages in one community does not necessarily result in an influx of labor from communities of lower wages. Men who act as furnace-room boys are usually of a low standard of intelligence and capacity. Being of an unintelligent, incapable class, they are liable to be inert, less responsive to the feel of the labor market than those of greater alertness and adaptability.

The younger men and boys are immobile for a different reason. They are restricted in movement by family ties. There is a small number of boy tramps in the industry who are always willing to move, and there is a larger number of so-called "widow families," families in which widows, having the labor of their own or other children as their only remaining asset, are anxious to carry it to the best-paid market, provided it is not too distant. But the majority of the younger furnace-room boys are members of normal families, in which the father's residence determines that of his children, of the younger ones at least. In most cases the father is not in the glass industry, or at least is not in a boy's occupation, and thus is not in a position to change his residence in order that the child may respond to a higher wage in another community. So marked is this fact that it is taken advantage of by some glass factories, which deliberately seek locations in which the prevailing industries employ the men, but leave a surplus of boys for the glass factory. Thus an important tableware factory has located itself in a coke section, and is thus enabled to obtain cheaply the services of children, and in this case of women—persons whom the coke industry does not demand. In a community such as this the wages of furnace-room boys may remain at a much lower level than that of a near-by community where boy labor is scarce.

The development of the interurban and rural electric transit system has had some effect in leveling wages over larger territories. In some places it was found that boys from farms worked at factories 10 and even 20 miles distant from their homes. But there is a definite limit thus separating workshop from home, even when cheap transit facilities are available, and in most of the glass manufacturing communities such facilities are still absent.

Examples of this immobility of boy labor are common. One is that of two factories near Pittsburg and less than 6 miles apart, in one of which the usual wage for boys under 16 is 95 cents per day and in the other 75 cents. A second example is that of two West Virginia factories, within 5 miles of each other, in one of which the usual wage of furnace-room boys is 20 per cent higher than in the other. A third example is found in two Pennsylvania factories under the same management and less than an hour's journey apart, in one of which the scale of boys' wages was almost 25 per cent higher than in the other. Such instances could be greatly multiplied. For present purposes it is sufficient to point out that they are not only numerous, but also that they are not limited to particular States or even to particular sections of the country.

Besides this frequent variation in wage from factory to factory, due chiefly to the local immobility of the labor force, there is a certain variation between larger areas, due to broad differences in labor conditions. The wage level for furnace-room boys, for instance, is somewhat lower in New Jersey than it is in the Ohio River glass district and lower in this district than it is in the recently developed glass region of Kansas. Sometimes such differences are more or less coincident with state lines, as in the mentioned instances of New Jersey and Kansas. At times, however, a glass district includes more than one State. The most important of these, the so-called "Pittsburg and Ohio River district," although not of large territorial extent, reaches into three States—Pennsylvania, Ohio, and West Virginia. In such a case as this state lines do not form satisfactory bases of wage comparison. They suffice, however, to bring out certain of the more significant points, and for this purpose the following table is offered. This table shows the average hourly earnings of furnace-room boys in the several States. The States are arranged in descending order of hourly earnings.

AVERAGE HOURLY EARNINGS OF EMPLOYEES IN BOYS' OCCUPATIONS IN THE FURNACE ROOM, BY STATES.

Males under 16 years.			Males 16 years and over.		
State.	Number of persons.	Average earnings per hour.	State.	Number of persons.	Average earnings per hour.
Wisconsin, Missouri, and Kansas	86	$0.126	Wisconsin, Missouri, and Kansas	324	$0.151
Indiana	395	.124	Indiana	1,455	.148
West Virginia	394	.120	West Virginia	367	.146
Ohio	382	.116	Illinois	1,285	.145
Pennsylvania	1,378	.108	Massachusetts	51	.139
Tennessee, South Carolina, and Georgia	47	.106	Ohio	1,667	.137
Illinois	256	.102	New York	571	.133
New York	68	.102	Pennsylvania	1,535	.132
Massachusetts	21	.100	New Jersey	1,271	.121
New Jersey	394	.100	Tennessee, South Carolina, and Georgia	67	.116
Virginia	72	.073	Virginia	102	.097
Maryland	122	.066	Maryland	157	.087

Two facts at least are developed in this table: First, that wages are considerably higher in the Western States than they are in the East and South, and, second, that the wage levels of Maryland and Virginia are far lower than they are in any of the other States. That these differences are not to be accounted for on the ground that the hours of labor are longer in the States having the lower average hourly rate is clear from the data given in the preceding chapter on "Hours of labor." It is there shown that, while the hours of labor do differ somewhat from State to State, such differences tend rather to intensify than to nullify the contrasts of the above table.

The use of the average hourly earnings, however, while satisfactory in showing the more marked contrasts between the States, is incapable of indicating the possibly more significant fact of wage fluctuations within the individual States. Thus, for boys under 16 the average hourly earnings are almost the same in Indiana as in West Virginia, but the fluctuations which result in approximately the same average are by no means the same. The next table attempts to show these fluctuations. It classifies for each State, and separately for boys under 16 and boys 16 and over, the individuals according to their full weekly earnings and, by means of parallel columns of cumulative percentages, enables comparison to be readily made. The States here, as in the preceding table, are arranged in descending order of average hourly earnings.

AVERAGE HOURLY EARNINGS AND CLASSIFIED FULL-TIME WEEKLY EARNINGS OF EMPLOYEES IN BOYS' OCCUPATIONS IN THE FURNACE ROOM, BY STATES.

MALES UNDER 16.

State.	Total number of employees.	Number of employees with full-time weekly earnings of—					Per cent of employees with full-time weekly earnings as much or more than—				Average hourly earnings.
		$2 to $3.99.	$4 to $5.99.	$6 to $7.99.	$8 to $9.99.	$10 and over.	$4.	$6.	$8.	$10.	
Wisconsin, Missouri, and Kansas	86	......	9	75	2	......	100.0	89.5	2.3	......	$0.126
Indiana	395	......	212	166	17	......	100.0	46.3	4.3	......	.124
West Virginia	394	1	260	106	20	7	99.7	33.7	6.8	1.8	.120
Ohio	382	......	164	209	9	......	100.0	57.1	2.4	......	.116
Pennsylvania	1,378	175	742	431	29	1	87.3	33.4	2.2	.1	.108
Tennessee, South Carolina, and Georgia	47	7	25	15	......	......	85.1	31.9	......	......	.106
Illinois	256	12	218	26	......	......	95.3	10.2	......	......	.102
New York	68	6	52	10	......	......	91.2	14.7	......	......	.102
Massachusetts	21	......	21	......	......	......	100.0	......	......	......	.100
New Jersey	394	23	308	63	......	......	94.2	16.0	......	......	.100
Virginia	72	53	18	1	......	......	26.4	1.4	......	......	.073
Maryland	122	106	15	1	......	......	13.1	.8	......	......	.066
Total	3,615	383	2,044	1,103	77	8	89.4	32.9	2.4	.2	......

MALES 16 AND OVER.

State.	Total number of employees.	Number of employees with full-time weekly earnings of—					Per cent of employees with full-time weekly earnings as much or more than—				Average hourly earnings.
		$2 to $3.99.	$4 to $5.99.	$6 to $7.99.	$8 to $9.99.	$10 and over.	$4.	$6.	$8.	$10.	
Wisconsin, Missouri, and Kansas	324	......	22	177	125	......	100.0	93.2	38.6	......	$0.151
Indiana	1,455	......	303	815	290	47	100.0	79.2	23.2	3.2	.148
West Virginia	367	2	84	226	43	12	99.5	76.6	15.0	3.3	.146
Illinois	1,285	2	191	930	162	......	99.8	85.0	12.6	......	.145
Massachusetts	51	......	21	10	19	1	100.0	58.8	39.2	2.0	.139
Ohio	1,667	1	274	1,134	121	137	99.9	83.5	15.5	8.2	.137
New York	571	8	133	319	102	9	98.6	75.3	19.4	1.6	.133
Pennsylvania	1,535	39	518	691	268	19	97.5	63.7	18.7	1.2	.132
New Jersey	1,271	11	514	707	33	6	99.1	58.7	3.1	.5	.121
Tennessee, South Carolina, and Georgia	67	2	34	31	......	......	97.0	46.3	......	......	.116
Virginia	102	30	56	16	......	......	70.6	15.7	......	......	.097
Maryland	157	50	90	15	2	......	68.1	10.8	1.3	......	.087
Total	8,852	146	2,239	5,070	1,166	231	98.4	73.1	15.8	2.6	......

The items of this table, showing the actual wage distribution within the several States, present some extremely interesting contrasts which the simple average hourly earnings entirely fail to present. The first two entries on the list form an excellent illustration of this. The average hourly earnings of boys in Kansas, Missouri, and Wisconsin is only two-tenths of a cent higher than it is in Indiana, and yet in the former States 89.5 per cent of such boys received as much as $6 for a full week's work, whereas in Indiana only 46.3 per cent of the boys attained to that amount. Further examination of the table indicates many examples of the same character.

EARNINGS, BY AGE.

In the preceding tables it has been seen that under all conditions the wages of boys of 16 and over as a group are distinctly higher than those of boys under 16 as a group. This indicates a marked tendency for wage to increase with age, and, within certain limits, this is true for all ages up to complete manhood. It is a general rule that the older the furnace-room boy the higher his wage. This is not necessarily true, as has been previously suggested, of a particular factory or even of a small community. In any one factory there are seldom more than three stages of progression. The child is paid a certain wage largely because he is a child; the well-grown boy or youth, say of the ages extending from 16 to 19 or even to 20, is paid a somewhat higher wage, and a grown man is offered still more. Moreover, as the wage standards may vary from factory to factory, and much more from community to community, there need not be any uniformity of wage for persons of the same age, either for the industry as a whole or even for single States. The highest wage, paid to men only, in one factory or community may be the usual wage of youths or even children in another factory or community. Thus, for the industry as a unit, there are wide variations in the wages paid to furnace-room boys of even precisely the same age. But the uniformities of age are more marked, on the whole, than are the dissimilarities of locality, so that when comparison is made of furnace-room boys over a large territory the tendency of wage to increase with age becomes a clearly marked fact. This is made evident in the following table, which shows for the boys of each age, first, the numbers receiving specified amounts as full weekly earnings, and, second, in order to render comparison more easy, the percentage importance of these numbers.

CLASSIFIED FULL-TIME WEEKLY EARNINGS OF EMPLOYEES IN BOYS' OCCUPATIONS IN THE FURNACE ROOM, BY AGE.

Age.	Total number of employees.	Number of employees with full-time weekly earnings of—					Per cent of employees with full-time weekly earnings as much or more than—			
		$2 to $3.99.	$4 to $5.99.	$6 to $7.99.	$8 to $9.99.	$10 and over.	$4.	$6.	$8.	$10.
Under 12 years	33	9	22	2	....	....	72.7	6.1	....	....
12 years	58	17	29	12	....	....	70.7	20.3	....	....
13 years	171	47	91	30	3	....	72.5	19.3	1.8	....
14 years	1,478	184	877	393	21	3	87.6	28.2	1.6	0.2
15 years	1,875	126	1,025	666	53	5	93.3	38.6	3.1	.3
16 years	2,362	89	946	1,175	135	17	96.2	56.2	6.4	.7
17 years	1,787	25	550	1,048	144	20	98.6	67.8	9.2	1.1
18 years	1,426	16	336	879	157	38	98.9	75.3	13.7	2.6
19 years	840	5	150	554	102	29	99.4	81.5	15.6	3.5
20 years	597	7	92	375	109	14	98.8	83.4	20.6	2.3
21 years	337	1	47	214	61	14	99.7	85.8	22.3	4.1
22 years	234	2	28	136	51	17	99.1	87.2	29.1	7.3
23 years	143	....	10	73	49	11	100.0	93.0	42.0	7.7
24 years	111	....	10	60	36	5	100.0	91.0	36.9	4.5
25 to 34 years	463	....	27	247	152	37	100.0	94.2	40.8	8.0
35 to 44 years	153	....	11	78	55	9	100.0	92.8	41.8	5.9
45 years and over	155	....	11	77	64	3	100.0	92.9	43.2	1.9
Others, reported as 21 years and over	244	1	21	154	51	17	99.6	91.0	27.9	7.0
Total	12,467	529	4,283	6,173	1,243	239	95.8	61.4	11.9	1.9

The fact of wage increasing by age is true not only for furnace-room boys as a whole, as is indicated in the preceding table, but is also true for each branch of the industry, for each geographical division, for each occupation, and for boys of each race and nativity. These several points need not be developed in detail. Their truth may be verified by reference to Tables IX and X, which classify the wage data on these several points by three broad age divisions, under 16 years, 16 to 20, inclusive, and 21 and over. The fact that in every case each of these older groups receives a higher hourly wage than that of the preceding group will indicate sufficiently clear the tendency referred to above.

METHODS AND FREQUENCY OF WAGE PAYMENTS.

FREQUENCY OF WAGE PAYMENTS.

In 81 of the 169 furnace rooms investigated payment of wages was made every week; in 87 biweekly or semimonthly, and in 1 monthly. Usually the money due was paid directly to the boy, whatever his age. All factories expressed themselves as willing to pay the wages of younger boys to the parents or guardians on demand, but it appeared that such demand was rarely made. No complaint was anywhere heard that wages were not paid promptly; and excepting the few instances later described, where a percentage of the wage was retained for a period in order to increase regularity of work, no instance was found of any unexplained deductions from wages.

TIME AND PIECE RATES.

The time wage for furnace-room boys is traditional in the industry, and is almost universal, only 5 of the 169 furnace rooms investigated using the piece-rate system in boys' work. These five expressed themselves as satisfied with the piece system, but there was little indication of its extending itself. For the most part, indeed, the character of the boys' work lends itself so readily to the use of the time wage that there is little inducement to employ the piece rate. This is particularly true in the case of handmade ware. The boys are, strictly speaking, the men's helpers, and team or shop work is universal. It follows, therefore, that as the number of persons to a shop is more or less strictly limited, the members must work with uniform rapidity. One slow member, whether a man or a boy, will retard a whole shop. The men as well as the boys differ in their possible speed of working, and it is the duty of the foreman to so arrange the working force that the members of each shop shall be of approximately the same working speed. In every factory, therefore, there are some shops which are habitually less productive than others.

Within each shop, however, it is the skilled men who set the pace. If they work slowly, the boys must also work slowly; if they speed, the boys must also speed to the best of their ability. In such circumstances the usual factory management does not see that there is anything to be gained by paying the boy on a piece-rate basis. On the one hand, the skilled men are always paid by the piece, and their pressure may be counted upon to extract the necessary speed from a slow boy. On the other hand, even if the boy is unduly active, he is unable, in any case, to work beyond the pace set and maintained by the skilled men.

The carrying-in boy is a possible exception to this rule. The number of carrying-in boys is not always as definitely fixed per shop as is the number of other boys. An unduly active boy may carry in for two shops, or two such boys may carry in for three shops. Speed on the part of these boys may therefore be encouraged by extra payments, and one Pennsylvania factory does so, paying to their carrying-in boys a premium price for all above a certain number carried in, and thereby keeping them at the highest pressure. The number of these exceptional cases, however, is not large.

The second purpose of piece rates, that of encouraging care on the part of the workers, is without any considerable importance in the case of furnace-room boys. In hand shops, at least, reasonable care on the part of the boys is assured by the pressure of the skilled men. All the boys, except the carrying-in boys, work immediately under the supervision of the skilled men, who, being paid for perfect ware, may be counted upon to see that the boys exercise due care at their work.

This is not quite so true in the case of certain classes of machine work, in which the boys are thrown more upon their own responsibility. Here there is no finisher to interpose between the boy's work and the final deposit of the ware in the leer, and thus carelessness is less easily detected and less easily attributed to its proper source. To encourage care in such cases two factories have adopted the piece-rate system for machine boys.

In summary, therefore, it may be said that piece rates for furnace-room boys are seldom resorted to, because they are seldom needed to secure the ends for which they are most employed—speed and carefulness. So far as these need to be encouraged, a more satisfactory incentive than the piece rates has been found in the premium.

PREMIUMS AND FINES.

Premiums of one kind or another are in common use among furnace-room boys. They are used for various purposes, the most important of which are (1) to secure, as has just been suggested, greater speed and carefulness of work, and (2) to insure a greater regularity of work.

PREMIUMS FOR SPEED AND CAREFULNESS.

Usually the pressure of the skilled men can be depended upon to extract the necessary speed and care from a boy, but sometimes extra payments are made for the boys in the fast shops in order to keep them better satisfied as well as more active at their work. The necessity for such extra payment depends upon the community and the factory. If boys are plentiful, extra inducements need not be offered, but if labor is scarce a boy may very well object to working in an extremely fast shop without some extra compensation. In a few cases of this kind the employer pays a bonus to the boy thus speeded, but more frequently it is the blowers themselves who pay such a bonus. If, for instance, three exceptionally fast blowers are brought together in one shop, they may be able to turn out a daily product far in excess of the average, and it may be that they are prevented from doing so solely because of the difficulty in obtaining boys of sufficient speed to keep up with their work. In such case they may very well be willing to pay an extra 50 cents or so per day in order to secure the best boys.

That the difference between a fast and a slow shop may be considerable enough to warrant such a procedure is shown by the following output figures of nine shops in a western factory. The separate entries are for days, the article beer bottles, the quantities dozens:

COMPARISON OF DAILY OUTPUT IN FAST SHOPS AND IN ORDINARY SHOPS.

Fast shops.	Daily output of—		Ordinary shops.	Daily output of—	
	Pint bottles (dozen).	Quart bottles (dozen).		Pint bottles (dozen).	Quart bottles (dozen).
Shop No. 1	275	261	Shop No. 6	239	220
Shop No. 2	279	263	Shop No. 7	244	215
Shop No. 3	285	267	Shop No. 8	237	213
Shop No. 4	304	266	Shop No. 9	234	210
Shop No. 5	298	248			
Daily average, fast shops.	288	261	Daily average, ordinary shops.	239	215

In the faster of these shops the blowers were paying each boy a bonus of 50 cents per day.

Again, premiums are sometimes, though rarely, paid to machine boys in order to stimulate their speed and care. Usually this premium takes the form of a flat or progressive bonus for all production above a certain amount. Thus, to cite one of the few examples of this variety of bonus: An arbitrary standard is established, purposely low in order that it may always be exceeded; a premium of 5 cents is paid for the first 20 dozen in excess of this standard, 10 cents for the second 20 dozen, 15 cents for the third 20 dozen, and 20 cents for the fourth 20 dozen. Occasionally also the boys receive a premium when the earnings of the skilled men are beyond a certain figure. In one establishment, for instance, the boys get 25 per cent of any money earned by the blower in excess of $44 in two weeks.

A particularly unjust arrangement exists in one factory, where, in addition to the regular scale, the blowers are paid premiums for large output. This stimulates the blower to excessive speed, even to working overtime (it is a nonunion plant), but the boys received no additional pay for this additional speed or even for the additional time.

For the whole industry, however, the use of premiums to increase speed or to compensate for speed is rare, the number of factories so concerned being less than 10 per cent of the total. The second use of premiums, however, that for increasing the regularity of work, is so common as to be almost a trade practice.

PREMIUMS FOR REGULARITY OF WORK.

The great labor difficulty experienced by the average manager or foreman is that of securing a force of shop boys whose regularity of attendance can be reasonably assured. This is of the utmost importance because of the existing dependence of the skilled men on a full complement of boy help. The boys, however, particularly the younger ones, often display considerable irregularity. This irregularity takes three chief forms: (1) Avoidance of night work; (2) general unsteadiness, i. e., coming late, leaving early, and entire absence without warning; (3) leaving the glass factory when the warm weather begins. It is to prevent these several things that many employers find it necessary or desirable to offer their boys special inducements of one kind or another.

Night work, at least regular night work, is almost universally unpopular, and among the older as well as among the younger boys. There are very few factories in which unexplained absences are not greater on the night shift than on the day shift. A majority of the factories evidence this by paying for night work at a higher rate than for day work. Among factories working only five nights a week it is almost a general custom to pay the same for five nights as is paid for six days. This extra payment is usually made contingent on five full nights being worked, so that no benefit is derived by a boy who fails to be present even for one night. Another plan is to pay a higher flat rate for night work, without making it contingent on a full week's work. Thus one factory offers $1.25 for night work as against $1 for day work, and another pays 25 per cent higher wages at night than in the day. In one factory where a modified piece-rate system is in use among the boys, the difference in favor of night work is even more marked than in the preceding examples.

The tendency toward irregularity displays itself among day workers as well as among night workers, although usually in a less acute form. A boy comes late to work, or he leaves early, or he absents himself suddenly without notice; in these and other ways even a fairly regular worker may disorganize a shop from time to time. To secure greater steadiness the same resort to premiums is made as with the night workers, although usually the premiums are of less value. Again, however, the exact amount paid depends upon local labor conditions. In one factory 25 cents per week extra was found sufficient; in another as much as $3.85 for two full weeks' work was offered. In a third the premium increases progressively; 40 cents for 10 turns (half-day), 50 cents for 11 turns, 60 cents for 12 turns, etc. Occasionally the bonus is based on the size of the wage, one factory adding 10 per cent for a full two weeks' work, and another adding an amount equal to one day's pay if a full week is worked.

The final and possibly the most general use made of premiums is in the effort to keep the shopboys in the factory during the warmer weather. Only a small proportion of the glass factories operate all summer. The great majority close from July 1 to September 1, but even this shut down leaves two or three months of what is normally hot weather in most of the glass localities. In warm weather a furnace room is extremely uncomfortable, and on its commencement many of the boys immediately quit. This not only affects the younger boys, but even in greater degree the older boys and men, who with the coming of the open season tend to seek other and more lucrative work, such as railroad building.

To some extent the exodus of the regular employees is compensated for by the boys turned loose by the school vacation. But the compensation is seldom sufficient, and very frequently a factory is compelled to offer valuable inducements to retain a complement of boys. The necessity of such extra pay, as well as its amount, depends largely on the intensity of the heat. Occasionally, in certain factories the heat has been so intense that even the skilled men had to quit or work on short time. As most of the field work of this report was done in the colder season, little specific data was gathered on this latter form of premium. Usually, however, the premium is a flat increase in salary to those who remain and work with a certain regularity. An extra day's pay per week seemed to be the most usual system.

The not uncommon practice of giving a considerable present to such boys as are as regular as possible during a whole "fire" combines the various premium systems mentioned above. One factory gives to such boys a suit of clothes, another a baseball outfit; a third a series of excursions, etc. The following extract from the National Glass Budget is significant upon this point:

> The customary trouble which glass manufacturers experience in keeping the boys in their places in warm weather is now being experienced in most of the factories where boys are employed. At one New Jersey factory the company has been annoyed considerably for the past ten days by this nuisance. In order to keep the boys in their places the company has agreed to give each one who will continue to work to the end of the fire without a day's loss a free trip to the seashore.

And later:

> The promise of the company to give each tending boy who did not miss a day after the hot season set in a free trip to Atlantic City was made good last week. One hundred and thirty tending boys enjoyed a trip to the seashore at the firm's expense.

Another, but rather uncommon, method of holding the boy through the "fire" is to keep back a portion of his regular wage, and to return the accumulated sum only on condition that the full year is completed. Thus, one factory holds back 4 cents a day on each boy's pay, and another retains 10 cents a week. Whatever the exact form, however, the method is subject to abuse. The quoted wage for which the boy is hired is usually the full amount including the portion retained, and while this may be explained to the boy, there result cases of misunderstanding and even injustice.

Occasionally the fining system has been tried in place of the premium in order to secure regularity of work, but usually with much less success. At the time of the investigation the fine was so employed in only four of the factories scheduled, whereas some form of premium was in almost general use. Other forms of fines, such as for unruly conduct, were found to be extremely rare, and those imposed for actual damage to property were nowhere found to be excessive.

CHAPTER VI.

IMPORTANCE OF BOY LABOR; EMPLOYMENT OF SUBSTITUTES.

CHAPTER VI.

IMPORTANCE OF BOY LABOR IN THE INDUSTRY AND EMPLOYMENT OF SUBSTITUTES FOR BOY LABOR.

DECREASING IMPORTANCE OF BOY LABOR.

In connection with the glass industry, to a greater extent than with any other, the claim has been made that there is certain work about the factory which is an indispensable part of the system of production and which can be satisfactorily performed by young boys only. One of the clearest statements of this attitude is to be found in the resolution introduced by a member of the Glass Bottle and Vial Manufacturer's Association at the preliminary wage conference between representatives of that association and the executive board of the Glass Bottle Blowers' Association, held in May, 1908. This resolution reads as follows:

> Whereas the successful operation of a glass factory is dependent on a sufficient supply of minor labor; and
>
> Whereas the glass manufacturers have spent much time and money in the different States to prevent the enactment of laws that will unnecessarily restrict the employment of minors;
>
> Therefore we request that the different glass workers' associations use their influence with affiliated associations to create a sentiment on the subject that will be fair alike to all the interests involved.

As this resolution and other similar statements have been made chiefly in opposition to the attempts to raise the age at which children may be legally employed to 14 years, it is clear that by "minor labor" and similar expressions boys under the age of 14 years were intended. Nevertheless, as a basis for a study of the force which is being utilized in boys' occupations in glass factories, it is best in every way to accept the term "minor help" as inclusive of all males under 16, and from this point of view to consider the reality and extent of the dependence of the glass industry on the assistance of such "minor help."

Historically there was probably a time when the so-called "boys' occupations" of the glass factory were very largely filled by young boys, either actually under 16 years or, at most, barely of that age. Even at such a time, however, there must have been employed at such work a number of youths over 16 years who were still working in boys' occupations while awaiting their apprenticeship, as well as a smaller number of adults who, because of physical inability or other deterring reason, had failed to acquire the trade and had continued, therefore, to do boys' work for want of other and better employment.

No specific information upon this point is available for the early period of the industry in this country. The census of 1880, however, supplies data which may be taken as typical of as much of the preceding period as was comparable in the matters of processes and conditions of work. Prior to that year there had been very few and no very important innovations in the glass industry since the industry had been organized on the modern shop basis. Prior to that year, moreover, the employment of children had been little affected by the influences of outside circumstances, whether in the form of law or of public sentiment. In 1880 the manufacturer had practically the same freedom in employing boys for the furnace room as he had had a half century earlier. This being so, it may be assumed that the proportion of shopboys under 16 to boys of 16 and over was as great in 1880 as it ever had been since the present process of glass manufacture began.

The census of 1880 shows that in that year there were 18,599 males employed in those branches of the glass industry which were important employers of boys—the flint and green glassware branches. Of these 18,599 males of all ages, 5,398, or 29 per cent, were under 16 years of age. Owing to certain difficulties of occupational nomenclature, it is impracticable to determine the precise number of males who were engaged at boys' occupations in the furnace room. But the proportion between those under 16 and those of 16 and over can be ascertained by selecting only those occupations about which there is no question. This is done in the following table, which, based upon occupations including 3,631 males engaged at what were unquestionably "boys' occupations," shows that 65 per cent of such males were under 16 years of age. For purposes of later comparison the detail figures are given for each selected occupation and also separately for the two branches of the industry.

MALE EMPLOYEES IN BOYS' OCCUPATIONS IN 1880, CLASSIFIED BY OCCUPATION AND AGE.

[From Tenth Census, Manufactures, 1880, Special Report on Glass, p. 7. The "laying-up" boys in the green glass branch of the industry have been retained, for although the proportion of boys under 16 employed in this occupation was small, the work was a definite part of the carrying-in system of the time. "Gatherers" and "finishers," however, have been entirely eliminated. A few crimping boys were included by the census under the occupation of "finishing," but for the most part both of these occupations were filled by highly skilled men, and therefore should not be included in boys' occupations.]

FLINT AND GREEN GLASSWARE BRANCHES COMBINED.

Occupation.	Number.			Per cent.		
	16 years and over.	Under 16 years.	Total.	16 years and over.	Under 16 years.	Total.
Carry-in boy	338	1,063	1,401	24.1	75.9	100.0
Clean-off boy	192	414	606	31.7	68.3	100.0
Lay-up boy	150	26	176	85.2	14.8	100.0
Mold boy	132	285	417	31.7	68.3	100.0
Stick-up boy	459	572	1,031	44.5	55.5	100.0
Total	1,271	2,360	3,631	35.0	65.0	100.0

MALE EMPLOYEES IN BOYS' OCCUPATIONS IN 1880, CLASSIFIED BY OCCUPATION AND AGE—Concluded.

FLINT GLASSWARE BRANCH.

Occupation.	Number.			Per cent.		
	16 years and over.	Under 16 years.	Total.	16 years and over.	Under 16 years.	Total.
Carry-in boy	156	762	918	17.0	83.0	100.0
Clean-off boy	192	414	606	31.7	68.3	100.0
Mold boy	132	285	417	31.7	68.3	100.0
Stick-up boy	338	543	881	38.4	61.6	100.0
Total	818	2,004	2,822	29.0	71.0	100.0

GREEN GLASS BRANCH.

Occupation.	Number.			Per cent.		
	16 years and over.	Under 16 years.	Total.	16 years and over.	Under 16 years.	Total.
Carry-in boy	182	301	483	37.7	62.3	100.0
Lay-up boy	150	26	176	85.2	14.8	100.0
Stick-up boy	121	29	150	80.6	19.4	100.0
Total	453	356	809	56.0	44.0	100.0

In 1880, therefore, almost one-third (29 per cent) of all the males in the industry were under 16 years of age, and almost two-thirds (65 per cent) of all males in specific boys' occupations were under 16 years of age. These proportions may be accepted, for the reasons given, as fairly representative of the organization of the glass factory when the employers are unrestricted in their employment of children by outside circumstances other than the normal scarcity of such children.

Since 1880 many important changes have taken place in the industry. Machinery has rapidly extended, new types of equipment have been introduced, and the geographical distribution of the industry has been greatly altered. All of these changes have affected the employment of children in the industry, and in very much greater degree such employment has been affected by the growth of child-labor legislation. As a result there has been a regular and marked decrease in the proportion of furnace-room boys under 16 to those of 16 and over. This is shown, as accurately as the information permits, in the table following, which gives for each of the years 1880, 1890, 1900, and 1905 the total number of male employees in the industry, divided between those who are under 16 years of age and those who are 16 and over.

This table is based on census figures, but considerable interpretation of such figures was necessary to bring them into comparable form. In the Census of Manufactures for 1880 the number of males under 16 employed is reported separately, but in the reports for 1890, 1900, and 1905 the classification is simply "children under 16," no separation being made between males and females. Therefore, to ascertain the number of male children included in the classification of "children under 16" for 1890 and 1900 it has been necessary to use the figures of proportion between the sexes, as given for these years in the Special Report of the Census on Child Labor, 1907 (Table 74, p. 85). For the year 1905 the necessary proportion has been obtained by interpolating between the census figures of 1900 and the results of the present investigation of 1908.

In considering this table it is to be specifically noted that all the male employees of the industry are included and not merely those who are in boys' occupations.

NUMBER AND PER CENT OF MALE EMPLOYEES 16 YEARS AND OVER AND UNDER 16 YEARS, PRESSED AND BLOWN GLASS AND BOTTLES AND JARS, 1880 TO 1905.

Year.	Number of establishments.	Male employees.			
		Number.		Per cent.	
		16 and over.	Under 16.	16 and over.	Under 16.
1880 [a]	147	13,201	5,398	71.0	29.0
1890 [b]	194	24,431	6,315	79.5	20.5
1900 [c]	231	30,372	6,317	82.8	17.2
1905 [d]	261	39,348	5,667	87.4	12.6

[a] Tenth Census, Manufactures, 1880, Special Report on Glass, p. 12, Tables III and IV.
[b] Eleventh Census, Manufactures, 1890, Special Report on Glass, pp. 332–337, Tables 5 and 6.
[c] Twelfth Census, Manufactures, 1900, Special Report on Glass, p. 968, Table 8.
[d] Census Bulletin No. 62 (1905), Glass and Clay Products, p. 20, Table 5.

The decrease in the importance of the labor of young boys during the period of twenty-five years is thus shown to have been extremely great. Not only was the proportion of males under 16 of all males in the industry only 12.6 per cent in 1905 as compared with 29.0 per cent in 1880, but the actual number of such persons had remained practically stationary during the period while the number of males of 16 and over had increased almost 200 per cent.

This fact of the decreasing importance of children in the furnace room may be shown in a second and better manner. The preceding table shows the fact of decrease according to the usual method, but that method suffers from certain defects. In the first place, the boys in the industry are employed, as has been previously shown, almost entirely as helpers to the skilled men in the furnace room; and it is consequently illogical to relate the number of them to the total number of men employed, including not only the skilled workmen, but also the packers, decorators, and general yard laborers, with whom the boys have absolutely no connection. Furthermore, it is quite possible to imagine a situation where the introduction of machinery might tend to eliminate the man more rapidly than the boy, the final result being that the proportion of boys to men would be enormous, while, at the same time, the problem of child labor might be almost entirely removed from the industry. Finally, the greatest development in the industry since 1880 has been in the manufacture of bottles, where the proportion of boys to men is much greater than in the manufacture of tableware, a circumstance which would tend to make the proportionate decrease of boys during recent years appear much smaller than it has really been.

For these several reasons it seems desirable to employ a factor of measurement which better embodies the growth of the industry. Such a factor offers itself in the average number of boys to a "pot." The "pot," using that term in its broad sense, indicates the number of working holes in a furnace and thus measures the working capacity of a furnace. Almost always there is one "shop" to a pot, and the shop, as the unit of the working force, has remained substantially unaltered in its membership. It varies in size with the character of the ware being produced, but with the same class of ware it is substantially the same from factory to factory and from year to year.

The following table offers a comparison on this basis between the respective conditions in 1880, 1890, 1900, and 1905. The figures used for the pot capacity are those given in the special report on the glass industry in the Census of Manufactures, 1905, while those for the number of males under 16 are the corrected figures as given in the table:

RELATION BETWEEN THE NUMBER OF MALE EMPLOYEES UNDER 16 YEARS AND POT CAPACITY OF FURNACES, PRESSED AND BLOWN GLASS AND BOTTLES AND JARS, 1880 TO 1905.

Year.	Number of establishments.	Total number of males under 16.	Total pot capacity of all establishments.	Average pot capacity per establishment.	Average number males under 16 per pot.
1880 (a)	147	5,398	2,099	14.3	2.6
1890 (b)	194	6,315	2,908	15.0	2.2
1900 (c)	231	6,317	6,215	26.9	1.0
1905 (d)	261	5,667	7,840	30.0	.7

[a] Tenth Census, Manufactures, 1880, Special Report on Glass. p. 3.
[b] Eleventh Census, Manufactures, 1890, Special Report on Glass, pp. 236 and 237.
[c] Twelfth Census, Manufactures, 1900, Special Report on Glass, p. 970.
[d] Census Bulletin No. 62 (1905), Glass and Clay Products, pp. 20 and 21, Table 5.

It appears, therefore, that in each successive census period since 1880 there has been a marked decrease in the number of boys under 16 per pot, or what is almost an equivalent, per shop. In 1880 there was an average of 2.6 boys under 16 per pot; in 1905 there was an average of only 7 boys to each 10 pots; making a total percentage decrease of no less than 73.1 per cent.

In thus showing the decreasing importance of child labor in the furnace room during the years from 1880 to 1905 census data have alone been used. To bring the discussion down to the date of the present investigation is impossible in the same detail. In the first place, this investigation was not a census of the industry, as it covered only about two-thirds of the field. In the second place, the method of this investigation was somewhat different from that of all the censuses quoted. The census figures, in stating the number of employees, give the average number for the year, while the present investigation sought to obtain the normal number employed when the factory concerned in each case was running at normal capacity.

The difference due to this fact is much greater than this simple statement would indicate, inasmuch as the census "average" was arrived at by taking the number of persons employed during each month, combining them for the year, and dividing the sum by 12. As practically all the establishments are in operation only ten months of the year, and only one or two operate even with a decreased force for more than eleven months, the difference between the "average" number shown in the census reports and the number normally employed is at least one-sixth of the total number.

Therefore it is not possible to compare the actual number of furnace-room boys as shown in the censuses cited with the number scheduled in the present investigation, but it is possible to compare the proportions of boys under 16 to those of 16 and over at these several periods. Such a comparison is offered in the table following, for the years 1880, 1890, and 1908. It is to be remembered, in examining this table, that the figures do not represent total numbers of individuals in the industry, but only those parts of the industry to which special study was given in the census reports for 1880 and 1890, and in the present investigation for 1908. As, however, in 1880 approximately 47 per cent of the total males was covered, in 1890, 80 per cent, and in 1908, 55 per cent, the data are amply sufficient for the purpose of the present comparisons.

NUMBER OF MALE EMPLOYEES 16 YEARS OF AGE AND OVER AND UNDER 16 YEARS IN SELECTED OCCUPATIONS, AND PER CENT UNDER 16 YEARS OF TOTAL IN OCCUPATION, PRESSED AND BLOWN GLASS AND BOTTLES AND JARS, 1880, 1890, AND 1908.

Occupations (selected).	Number of males.						Per cent of males under 16 of total in occupation.		
	1880. (a)		1890. (b)		Present investigation, 1908.				
	16 and over.	Under 16 years.	16 and over.	Under 16 years.	16 and over.	Under 16 years.	1880.	1890.	1908.
Carrying-in	338	1,063	1,660	2,317	2,360	995	75.9	58.3	29.7
Laying-up	150	26	397	74	....	....	14.8	15.7	....
Cleaning-off	192	414	694	633	838	281	68.3	47.7	25.1
Mold boy	132	285	570	552	1,857	649	68.3	49.2	25.9
Snapping-up	459	572	1,823	1,370	2,451	1,253	55.5	42.9	33.8
Total	1,271	2,360	5,144	4,946	7,506	3,178	65.0	49.0	29.7

[a] Tenth Census, 1880, Special Report on Glass, p. 7.
[b] Eleventh Census, Manufactures, 1890, Part III, p. 340.

The amount of decrease in the proportion of children shown in this table is apparently not the same as that shown in the preceding tables. This difference is largely superficial, being due to the different basis of comparison employed. In part, however, it is due to the difficulty of making comparisons of figures gathered according to entirely different methods and to some extent for different purposes. On the whole, however, the investigation of 1908 fully substantiates the tendency indicated by the several census returns. There has been a regular and marked decrease in the proportion of child labor to adult labor in the furnace room during at least the twenty-eight years from 1880 to 1908. In 1880, 65 per cent of all males in boys' occupations were under 16 years of age; in 1890 this proportion had diminished to 49 per cent; and in 1908 it had still further diminished to 29.7 per cent.

The fact of the decreasing importance of the child in the furnace room having now been indicated, and its extent estimated, some consideration may be given to the character of that decrease. In the first place, it is to be noted that the reduced importance of the child has not been merely the result of a gradual increase in the average age of those employed. In other words, the place of the child has been filled in great part by adults of 21 or over and not merely by youths of, say, 16 and 17. No statistics upon this point are available for any time preceding the present investigation. Interviews with numerous employees and blowers, however, are quite conclusive of the fact that until very recent years adults were very infrequent in the industry. The great majority of those who were as old as 16 years, and thus no longer classed as children in the census reports, were very little above that age. They were youths of 16, 17, and 18 who were desirous of being apprenticed. Such few men over 21 years of age as were engaged at such work were almost entirely of the defective class.

At present, on the other hand, the man of 21 and over is an important factor in the work of the boys' occupation. The exact extent of his importance is shown in the table following, which shows for each State, and separately for the two branches of the industry, the numbers and percentages of males of three main age groups—under 16, 16 to 20, and 21 and over—employed at boys' occupations. The numbers are those obtained in the course of the present investigation, and are not complete for the industry; but as the number of factories covered was more than two-thirds of those in existence at the time, there is no reason to doubt that the proportions here shown to exist between the different age groups are substantially accurate.

NUMBER AND PER CENT OF MALE EMPLOYEES IN SPECIFIED AGE GROUPS, BY BRANCH OF INDUSTRY AND STATE, 1908.

BOTTLES—JAR BRANCH.

State.	Under 16 years.		16 to 20 years.		21 years and over.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
New York	29	9.4	221	71.5	59	19.1
New Jersey	394	23.7	971	58.3	300	18.0
Pennsylvania	750	44.1	841	49.5	108	6.4
Ohio	159	17.0	626	67.0	150	16.0
Indiana	346	20.9	986	59.5	325	19.6
Illinois	256	16.6	768	49.9	517	33.5
Wisconsin	47	32.2	84	57.5	15	10.3
Missouri	34	17.0	117	58.5	49	24.5
Kansas	5	7.8	52	81.3	7	10.9
West Virginia	54	45.7	52	44.1	12	10.2
Maryland	122	43.7	139	49.8	18	6.5
Virginia	72	41.4	97	55.7	5	2.9
Tennessee, Georgia, and South Carolina	47	41.2	59	51.8	8	7.0
Total	2,315	26.0	5,013	56.3	1,573	17.7

TABLEWARE—SHADE BRANCH.

State.	Under 16 years.		16 to 20 years.		21 years and over.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Massachusetts	21	29.2	48	66.7	3	4.1
New York	39	11.8	204	61.8	87	26.4
Pennsylvania	628	51.7	538	44.3	48	39.5
Ohio	223	20.0	828	74.3	63	5.7
Indiana	49	25.4	124	64.2	20	10.4
West Virginia	340	52.9	257	40.0	46	7.1
Total	1,300	36.5	1,999	56.0	267	7.5

BOTH BRANCHES OF THE INDUSTRY.

State.	Under 16 years.		16 to 20 years.		21 years and over.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Massachusetts	21	29.2	48	66.7	3	4.1
New York	68	10.6	425	66.5	146	22.9
New Jersey	394	23.7	971	58.3	300	18.0
Pennsylvania	1,378	47.3	1,379	47.3	156	5.4
Ohio	382	18.6	1,454	71.0	213	10.4
Indiana	395	21.4	1,110	60.0	345	18.6
Illinois	256	16.6	768	49.9	517	33.5
Wisconsin	47	32.2	84	57.5	15	10.3
Missouri	34	17.0	117	58.5	49	24.5
Kansas	5	7.8	52	81.3	7	10.9
West Virginia	394	51.8	309	40.6	58	7.6
Maryland	122	43.7	139	49.8	18	6.5
Virginia	72	41.4	97	55.7	5	2.9
Tennessee, Georgia, and South Carolina	47	41.2	59	51.8	8	7.0
Total	3,615	29.0	7,012	56.3	1,840	14.7

It thus appears that, considering the industry as a whole, 14.7 per cent of all the males in boys' occupations are 21 years of age or over. It also appears that this proportion is by no means uniform among the States or between the two branches of the industry; and it may be noted, furthermore, that the largest proportion of adult men occurs in those States in which the most rapid development of the industry has occurred and in the bottle-jar branch.

Another point of considerable interest is developed from this table—the fact that the proportion of males 16 to 20 years of age to the total force is, with few exceptions, constantly above 50 per cent, the marked variations occurring in the percentages of those under

16 and those of 21 and over. In other words, the industry, as it now exists, is built upon the youth of 16 to 20, he being in almost every State and under almost all conditions the predominating factor in all "boys' occupations."

This fact of the present predominance of the youth of 16 to 20 years of age in boys' occupations is partially attributable to the peculiar character of the employment from the standpoint of a boy's promotion and progress in the industry. With regard to the progress of employees, most industries are of one of two types: First, those industries in which employees first enter an almost entirely unskilled occupation and then gradually advance to more and more skilled occupations, or, second, what is rapidly becoming the more common type, those industries in which employees enter an occupation possibly by chance, and remain throughout their careers in the one occupation, advancement coming in the shape of greater output or in being intrusted with the finer and better paid grade of work. The glass industry, however, is of neither of these types. The boy or youth entering the factory starts in at one of the so-called "boys' occupations" with practically no instruction and at a low wage of about 90 cents. He remains at this same general class of work, and with but a slight increase in wage usually about four years, acquiring in the meanwhile by observation and by occasional practice in gathering and blowing glass ("daubing," as it is known in the trade) a considerable knowledge of the trade. At the end of this time he may get a chance to become an apprentice, and if so he at once begins to practice his trade and to receive for his production one-half the blower's piece rate. With the constant practice of daily production his skill increases rapidly, so that within a relatively short time his earnings have grown by leaps and bounds until they become from $2.50 to $3.50 per day. At the end of five years, at apprentice's wages, he is paid at the journeyman's rate, and it is not until this time that he becomes a full-fledged blower, though all along he has been doing journeyman's work.

As a matter of fact, however, it is possible for only a very small percentage of the boys to attain to an apprenticeship and become skilled workmen. Apart from the agreed limitations, placed by the glass-blowers' union in their annual conferences with the employers' associations, upon the number of apprentices that may be taken during each year, there is a large number of the helpers who are prohibited from securing apprenticeships, either by their inability to learn or by their untrustworthiness. Furthermore, there is a point beyond which the supplying of the industry with apprentices can not be carried without bringing on a great overproduction of inferior ware and an unhealthy overdevelopment of the industry. As a result of these natural limitations, when a youth reaches 18 or

19 and has not secured his apprenticeship, there are only two alternatives open; either he must remain indefinitely in the factory as an unskilled helper with an ever-decreasing opportunity for apprenticeship and with only an extremely small increase in wages as he becomes older, or he must leave the industry altogether. At such an age the prospects outside are little better than those within the industry. He has lost the chances for an education and has sacrificed the years during which knowledge is most easily acquired. Consequently, he can reenter the industrial world only as an unskilled laborer or start in some new trade at the bottom.

On the whole, however, the great majority of boys who having reached the age of 18, 19, or 20 without having received apprenticeship elect to leave the glass industry and try their fortunes elsewhere. As a result, the glass industry when compared with other industries presents a very anomalous situation, which unfortunately can not be clearly demonstrated, as there are no figures available showing the exact age of persons in all industries in this country, but which it is believed will be evident when pointed out. In American industry as a whole the curve representing the ages of male employees would tend to rise very rapidly up to 16 years, then very gradually up to 23 or 24 years, the additions during this period being due to the entrance of the younger immigrants, and from this point it would begin to fall very gradually until the 40 to 45 year period was reached, when the fall of the curve would quicken, owing to the increasing death rate and the supplanting of older men by younger. In the glass industry the situation is quite different, as is evident from the table. The table shows the number and percentage of males in boys' occupations by specific ages for the industry as a whole and for each branch of the industry separately.

NUMBER AND PER CENT OF MALE EMPLOYEES OF EACH SPECIFIED AGE.

Age.	Bottle-jar branch.		Tableware-shade branch.		Both branches of the industry.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Under 12 years	13	0.2	20	0.6	33	0.3
12 years	27	.3	31	.9	58	.5
13 years	89	1.0	82	2.3	171	1.4
14 years	972	10.9	506	14.2	1,478	11.9
15 years	1,215	13.6	660	18.5	1,875	15.0
16 years	1,522	17.1	840	23.6	2,362	18.9
17 years	1,247	14.0	540	15.1	1,787	14.3
18 years	1,090	12.2	336	9.4	1,426	11.4
19 years	659	7.4	181	5.1	840	6.7
20 years	494	5.6	103	2.9	597	4.8
21 years	280	3.1	57	1.6	337	2.7
22 years	206	2.3	28	.8	234	1.9
23 years	125	1.4	18	.5	143	1.1
24 years	95	1.1	16	.4	111	.9
25 to 29 years	292	3.3	30	.8	322	2.6
30 to 34 years	116	1.3	25	.7	141	1.1
35 to 44 years	130	1.5	23	.6	153	1.2
45 to 54 years	83	.9	11	.3	94	.8
55 to 64 years	44	.5	6	.2	50	.4
65 years and over	10	.1	1	(a)	11	.1
Others 21 years and over	192	2.2	52	1.5	244	2.0
Total	8,901	100.0	3,566	100.0	12,467	100.0

[a] Less than one-tenth of 1 per cent.

It will be seen that for the industry as a whole there is a very rapid rise in the percentage importance of each age up to the age of 16; then an equally rapid fall to about 21 years; and thereafter a very gradual fall, the only losses being due to death, and these losses being largely compensated for by the entrance into the work of men. The direction of this curve would not be precisely the same for all States. In Pennsylvania, for instance, the age of most dense membership is 14, while in the Indiana bottle factories it is approximately 17. But the general movement of the curve is substantially the same for all portions of the industry and under all conditions.

EFFORTS TO MAINTAIN THE SUPPLY OF "SMALL HELP."

The causes for the decrease in the proportion of boys under 16 in the glass factory have already been suggested. The most impelling cause has been the growing sentiment in most communities against the employment of young children at factory work, a sentiment which has frequently resulted in the enactment of restrictive laws. The establishment of a minimum age limit of employment, even though such minimum be well below the age of 16, always results in a decrease in the number of boys under 16 employed by the glass industry. Every glass factory is limited in the field from which it can draw its boy labor. To raise the age limit of employment immediately restricts the supply of available boys. In a small community, for instance, a factory might be able to obtain a full complement of boys ranging in age from 12 to 15 years, but if the legal age should be raised to 14, it might be impossible for the factory to obtain a full complement of boys not under 14 and not over 15 years of age.

The same applies to the use of youths of 16 or 17 years of age. There is a definite limit to the number of such individuals in a given community and if a factory so located continued to increase its demands beyond this limit there would be no forthcoming supply, and on the assumption that no such persons immigrated from other communities to meet the supply, it would be absolutely necessary to employ still older boys or even men.

This, in brief, is the situation as it has confronted glass manufacturers during the past several years. There has been a growing scarcity of "small help" and an increasing demand for such as was available. The usual glass manufacturer continued, and still continues, to want a considerable number of small boys in the furnace room. He wants them partly because he thinks them more efficient at the particular work and partly because they are cheaper. It need not be that he specifically wants boys under 16; youths of 16 or 17 would probably suit him as well; they would be practically children from the labor standpoint and would receive what are practically children's wages. But rarely is it possible to equip his furnace room with youths of these precise ages. There are not enough such persons in the community. Thus to equip his force the manufacturer must either have a supply of boys under 16, or, if this is impossible, must employ older men; and this he objects to, partly because he thinks them less efficient and partly because they demand considerably higher wages.

This was the attitude of practically all glass manufacturers a few years ago, and still is the attitude of the great majority. Substitutes for child labor, in the form of adult labor, machinery, new methods of work, etc., gradually suggested themselves. But for the most part, such substitutes have been tried only under the compulsion of circumstances and not until every effort has been made to maintain a full equipment of youthful labor.

The methods devised as a result of this effort were of two general classes—those directed toward the longer retention of boys once obtained and those for increasing the supply of boys by importation from outside. Both classes of methods are deserving of consideration, particularly as many of the devices are still being used by certain manufacturers.

METHODS OF RETAINING BOYS.

The young boy in the furnace room was, as indeed he still is, an exceedingly irregular worker. Not only was it uncertain just how long he would stay with one firm, but also it was very doubtful whether he would appear for work at the beginning of any shift or remain until the day's work was done. So great was this uncertainty and so important the consequence of not having enough boys to fill the shops—for the absence of one boy in a shop meant the loss of the work of three skilled men and two or three other boys—that in many establishments it was customary to keep on the pay roll from 25 to 50 per cent more boys than would actually be needed at any one time, the extra boys who came being paid and kept as "spare boys" to supply the places of boys who might suddenly disappear during "tempos" or mealtime.([a]) In view of such a situation, the most obvious thing to do when an increased labor force was required was to attempt to make the persons already employed steady and reliable workers, an attempt which, if entirely successful, would of itself virtually increase the force from 25 to 50 per cent. These attempts took the form largely of giving premiums for steady work or of holding back a part of the wages, which would be forfeited in case of lost time. Although a discussion of this subject belongs more properly under the general head of wages, and is there given, a brief repetition of the methods used may be made here.

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[a] A Maryland company had on its pay roll 232 boys, though only 150 were needed when the plant was running at full capacity.

The most common form of premium consists in the payment of an extra day or half day's wages if no time is lost during the pay-roll period. In bottle factories there are during each two weeks' pay period 11 regular shifts, 6 by day and 5 by night, and in tableware and shade factories there is the same number of shifts, but divided into 5½ day and 5½ night shifts. To encourage steady work, the method was frequently adopted of paying for 12 shifts provided the 11 full shifts were worked. This is in part a premium for night work, but it is more clearly a premium for regular work. In other cases the same system was applied to a much longer period, one of the most common methods being to pay a percentage bonus, give a suit of clothes, a picnic or a trip to the seashore to such boys as had lost less than a certain number of days, usually unspecified, during the entire working season. In still other cases a certain percentage was deducted and withheld from each period's earnings, the accumulated amount to revert to the company in case the boy quit before the end of the "fire." The latter methods seem never to have been very successful, but the former system of paying at the end of each period a slight bonus for steady work has been, and still is, widely employed, and, from the standpoint of encouraging regular work, has been very successful.

The efforts to retain the boys once obtained was also extended to include youths of 16 to 18 or even 19 and 20 years of age. Formerly when the supply of boys was plentiful little or no effort was made to retain the youth after he had passed, say, 16 years, although according to the statements of a large number of manufacturers the age of 16 to 20 is the one of greatest efficiency. With the decrease in the available supply of boys, however, efforts were made to retain the older boys who would otherwise drop out by such methods as the payment of higher wages or by the granting of a nominal apprenticeship, and thus allowing the favored boy to work at the trade periodically, although for a large part of the time he would be compelled to work in the boys' occupations. This method is now in use in at least a half dozen large plants.

METHODS OF RECRUITING BOYS.

As the supply of boys in the particular community tends to decrease, a most natural effort of the manufacturer desiring boys is to seek to recruit this supply by the importation of boys from other places. This subject is of such very pertinent interest in the glass industry that the information regarding it will be presented in considerable detail.

The most widely prevalent and, from the point of view of the manufacturer, the most successful of these recruiting methods has been the importation of large families, containing one or more boys of the desired age. On the one hand, such a family agrees either by written or oral contract to put the boys to work in the glass factory; on the other, the factory offers certain inducements to the family to make such an agreement. These inducements are of varied character. The most common is to guarantee the father steady employment in the factory as an unskilled laborer as long as his boys are kept at work. In many cases free transportation to the community was given to the family; in others the cost of transportation was only advanced, being later deducted from the earnings of the boys and father.

Agents and advertisements have been freely used as a means of obtaining such families. As an example of the form of advertisement used the following may be quoted:

> Boys are scarce at ———, Pa., and Manager ——— of the ——— Flint Bottle Company, offers to furnish railroad fare and steady work to laborers who have several boys old enough to work in the factory.([a])

Where, as in south Jersey, a company store forms a part of the system, it is still customary to grant to such families a certain amount of credit per week as long as the boys remain at work.

In one of the southern factories the plan pursued is slightly different. The report of the agent investigating this case is as follows:

> When the supply of boys runs short, a man employed by the company for hauling makes short trips with his wagon into the surrounding country and hunts up "widow women" with children, in order to get the boys into the factory. If the family decides to live in town instead of in the suburb in which the factory is located, the company pays the boys' car fares in addition to the regular wages.

As an instance of the very large scale upon which these operations were at times conducted, the following case may be cited:([b])

> The ——— of ———, Ill., announces that the ——— Glass Company of that place has decided to make strenuous efforts to induce 200 families to remove to ———, so that the glass works can secure boys to operate with. The glass company promises to find employment of some kind around their large plant for the fathers of families with boys. The glass company promises to find work for all the members of the families that may locate at ———. The girls will be properly provided for. This move on the part of the glass company has been made necessary by the enforcement of the child-labor law in Illinois. The plant has been seriously crippled by lack of boys since the law has been enforced.

One month later (Dec. 14, 1895) there is printed the following statement of the manager of the company to a representative of the ——— of ———, Ill.:

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[a] National Glass Budget, May 8, 1897.

[b] Commoner and Glassworker for November 9, 1895.

> Yes, it is true that we have have discharged some of the unskilled laborers. It was a hard deal for some of the unfortunate fellows, but in the face of the conditions confronting us there was nothing else to do. We have been endeavoring, as you know, to get families to come to ——— which would furnish us with the boys that we need, and in order to get them to come we have been compelled to promise work for the fathers as well as the boys and girls. Owing to the idleness of the ——— car works, the ——— quarries, and other concerns we have been very successful in bringing these people here, and they have come in to the number of several hundred. Naturally, all the men are unskilled laborers, and in order to get the boys and girls we are compelled to employ the fathers. We have thus overflowed our yard and other forces where unskilled labor is employed, and have been compelled to let some of the men go to make room for the men who bring with them the boys that we must have. I know that it is hard, but what else can we do?

Under such a system abuses inevitably crept in, and families were induced to migrate from the country to other towns by misrepresentations of the conditions. In the case of one such importation several years ago, the labor agent for the company went into a rural district with which he was familiar and induced a large number of families to move to the town by completely misrepresenting the nature of the work, the wages to be paid, and the opportunities for education outside of working hours open to the boys in the factory. As a result suits were threatened and the company was forced in a measure to make good the guaranty of its agent, but not until considerable loss and discomfort had been occasioned in the families concerned. ([a])

In another case (in New Jersey) families were induced to settle in a locality largely by means of the statement that a night school was maintained by the glass company which could be attended by the boys. As a matter of fact, such a night school had been maintained by the company during the previous year, but it was discontinued during the year in question as an act of retaliation against the enactment of a state law raising the legal working age from 12 to 14 years. Up to the present time, the night school has not been reestablished, and these boys who left a country school at 10 and 11 years have received no further education.

Apart from the importation of such families, there is a very well defined attitude on the part of a large number of manufacturers to compel their unskilled and semiskilled workmen to put their children in the factory as soon as they become of legal working age, or in some cases, before legal age is actually reached. No instances of specific written agreement on the part of workmen to put their children into the factory were developed by the investigation, but a number of manufacturers stated frankly that such an understanding was usually had when an unskilled laborer was employed, while in other cases there was merely a tacit understanding that the men who would be retained by the company in case it became necessary to reduce the force were the men who had sons in the factory. An excellent illustration of this is afforded by the case of a large bottle factory in which it became necessary during the financial depression of 1908 to lay off about two hundred unskilled laborers. Of the ten who were heard to ask the superintendent to be retained only one spoke of his own efficiency, all the others basing their claim to a job on the assertion that they had kept one or more sons in the factory throughout the winter. All were refused, and one of the men in the office said when one threatened to remove the boys, "It's a sure thing he won't; he'll have a hard time keeping that big family of his for the next six months even with his kids in the factory."

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[a] Statement of father of one such family to an agent of the Bureau.

One of the chief causes of the difficulty experienced by glass manufacturers in securing an adequate supply of labor for boys' occupations is the fact that since the early eighties glass factories and particularly bottle factories have followed the development of the natural-gas regions, oblivious to other considerations in their search for cheap fuel. As a result they were forced to locate in unsettled areas, which usually meant that the working force both skilled and unskilled had to be brought in from without. This situation is very clearly brought out in the following: ([a])

> One of the greatest difficulties in the way of successful operation of glass factories built in "magic towns" is the absence of small boys. The small boy is indispensable in glass houses, and how to get him in sufficient numbers is a problem that presses for solution in many glass towns to-day. It isn't the town that springs up over night that is alone in need of boys; the glass town of three, four, or five years' existence is pretty generally in need of boys also. Findlay and Fostoria apparently solved the problem for themselves a few years ago by importing from the larger cities boys from orphan asylums. The denominations from which these boys have been secured have invariably insisted on still controlling the lads and boarding them at institutions erected on the spot. Whether this plan is satisfactory to all concerned is hard to say, but it is one that might receive the consideration of towns suffering from want of boys.

In an Ohio city of over 25,000, this system is still practiced and relied upon for the necessary quota of boy labor. The company makes an arrangement with boys who have no homes in the town to pay their board for them at the rate of $4 a week for full board and lodging and also to pay to the boys themselves an additional wage of 30 cents per turn in a week of 11 turns. This makes a lump payment, in addition to full board of $3.30 a week, a total compensation much greater than that paid the great majority of the boys in this factory.

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[a] Commoner and Glassworker, October 3, 1891.

According to the president of the company, the board arrangement is made as an inducement to bring in boys from the country or from other towns because "small help" is scarce. Ordinarily the $4 a week board money is paid to the landlady of the boy employees, but there is a regulation slip or form filled out and signed by all three parties to the contract, and the boy, if he brings this slip with him, may draw the $4 at the office and turn it over to the landlady with whom he boards. The slip merely indicates that the signer is one of the company's boarding-house keepers and is boarding blank number of boys at the rate of $4 per head. Whoever presents this slip at the office may receive the total amount of board money it calls for. It does not amount to a written agreement, but an oral agreement is made with the contracting or approved landlady to the effect that she is to furnish good board and watchful supervision at the rate of $4 a week per boy, and that to the boys is reserved the privilege of moving or changing to anyone of ten such boarding houses on the company's list. For the board boys, board at $4 a week is paid regularly even when the boys are temporarily laid off or there is a shutdown of the factory.

The president of this company stated that the number of their board boys was on the increase. The system had begun four years ago (1904) with 25 board boys and in March, 1908, this number had increased to 30. Most of the board boys come from other towns where there are no glass factories. A few are from the country. The company is in the habit of sending one of its pressers, a man who has himself worked in that district, to ———, Ind., to procure boys. It was stated that some boys were once procured from the state free employment bureau, Columbus, Ohio, "street rats," who were not considered worth their keeping after being brought in. Sometimes the vice-president of the company himself goes after such boys. The Saturday previous to the visit of the agent to the plant he had brought in 11 boys.

The boys thus boarded out by the company were getting good board, the same as that for which the men pay $4.50 a week. At one of these boarding houses, a member of the company used to get his noon-day luncheon because interested to see that a good table was provided. The boys, as a rule, chafe against a strict landlady who makes them stay in the nights that they are on day turn and otherwise restrains them, but the company has endeavored to make the boys stay with such landladies.

In view of their board-boy system the general attitude of this firm toward their young employees is interesting. At one time the firm started a night school for their boys, paying a teacher $50 a month and furnishing books and tuition free. They have attempted welfare work among the boys, providing a small clubhouse or detached room with games, books, etc. The company's night school was not a success and the firm now cooperates with the local Young Men's Christian Association, paying half the tuition fee for each one of its boys enrolled in the association's evening classes.

In another Ohio city of over 15,000 population a similar system of boarding boys has been practiced for several years. About 1890 the manager of this plant first obtained a few orphan boys for ordinary boys' work in the factory. They did not behave very well and most of them either ran away or were taken back by the placing agencies. Some years later, and particularly from 1899 to 1905, a considerable number of boys were obtained from a home in New York. At one time the company had 50 of these boys, some 30 being sent at one time with one of the home's representatives, who stayed in the city for a time in order to get the boys started in properly. Some of the boys were boarded in private families but the major portion were housed and fed in a frame house belonging to the company and situated across the street from the company's inclosure. A married couple lived in the house and had charge of the boys, taking care of the place and providing the food.

The place seems to have been kept fairly clean, though it was undoubtedly overcrowded. The boys were credited on the company's books with their earnings. They were charged with their board and lodging, approximately $3.50 per week. Fifty cents in cash was allowed each boy weekly for pocket money, and orders on the stores in town were given by the superintendent personally for such articles as the boys needed. The balance of their earnings was kept for the boys until such times as they left the company's employ.

Near the living quarters of the boys a small one-room building served as a clubroom for the boys to gather in after work and evenings. They seem, however, not to have had any help or guidance in their social activities, and the place served merely as a loafing place. A near-by lot was used as a playground, chiefly for baseball and football.

Of the orphan boys who were originally employed at this plant, none was under 14, the majority being 15 or 16. About ten out of the entire number remained in the establishment, there being at the time of the agent's visit several who had become blowers or gatherers or were completing their apprenticeship.

In speaking of the experiment the management stated that the long-continued experiment of getting the orphan help would never have been considered but for the extreme scarcity of boy help. Any intention of trying to obtain cheap labor in this way was disclaimed, and it is likely that the orphan boys were fairly paid as glasshouse wages were in that region. The officials of the company were united in the opinion that the experience thus far did not warrant its continuance. The superintendent complained of the absence of home discipline and stated that despite all his good intentions it was impossible for him to exercise proper individual supervision. Personally he complained of the great amount of worry the boys had given him and the annoyance caused through their constant demand for merchandise orders, which he insisted on issuing himself. The superintendent concluded his account with the statement that, although he believed that the orphan boys who had been working for him had been well cared for and very likely had been better off than they would have been in an institution or in a city, on no account would he resort to their employment in the same way in the future. In April, 1908, six of the boys were living in the company's house. These were all over 16 years of age and were paid their full wages in cash. The superintendent took an interest in them, and stated that he thought they would all become glass workers. From inquiry it appears that not one of the boys who were boarded with families in the town had been adopted by a family.

In addition to the New York orphans, this firm has also obtained a few orphans at various times from a home in Pittsburg. Also, at the time of the failure of another glass company, when a number of orphans were housed by it, this company took these boys off the other company's hands.

Two other examples of the importation and employment of orphan children may be cited. In 1900 a glass factory was opened in a small Ohio town. Some boys were obtained from the Cleveland juvenile court under parole. These boys were very unsteady and hard to control and frequently ran away, leaving the factory shorthanded. Since these boys were finally disposed of, boy help has been obtained from an Ohio orphanage. The boys who were thus employed by the company received only the same wage as other boys in like occupations and paid their board out of their earnings.

In a West Virginia town of some 5,000 population boys working in the glass factory were being boarded by one of the foremen and his wife. The house was a frame structure of three stories and attic, with an outside wooden stairway in the back that reached to the third story. The house had a bare aspect inside and out. The bedrooms, however, which were furnished with large beds and plenty of cover, were not uncomfortable. There were two washrooms and closets, with modern flush plumbing. The boys each paid $3.50 per week for lodging and three meals a day, which sum the glass company guaranteed out of the boys' wages, but did not share in the profits or losses of the boarding house. The majority of these boys were orphans, but none was under 16 years of age.

One of the greatest evils of the system of importing boys is the large number of "tramp boys" it helps to create. The boy from the city becomes restless under the monotony and tameness of the semirural environment. Having lived in the city all his life, he does not take readily to work, and less easily to life in a small town. The country boy also chafes under the restraint of factory life and sickens of the long night turn. In any case such a boy has no anchoring home influence and breaks away on the first pretext that offers to try his luck in another place. As a result there is a floating contingent of unemployed juvenile labor drifting about the glass-making territory and remaining only a short time in any one place.

The summer shut down, too, is responsible for many boy tramps in the glass industry. After the fire is out, boys start out "to see the world;" they drift about through the gas belt (of which they have heard stories from the blowers), and when the furnaces start in the fall begin work wherever they happen to be. The desire for wandering grows, and they are not content to remain long in any one place. The demand for boy labor is almost always greater than the supply, and the boys know it. They know also that the shop is demoralized if they fail to do their part, so those who have no anchor do not hesitate to leave when displeased with any feature of their work, for they know that in all probability a "job" is waiting for them at the next factory.

In a town of the Pittsburg district, of 30 boys who had been on a pay roll a month previous, 20 could not be found; they had moved on to other factories. In another town in the same district the entire number of boys (10) working at one factory had moved.

One of the causes of this tendency to vagrancy is the custom of many factories to allow tramp boys to sleep in the factory as long as they work steadily in the plant. The boys are thus assured of a place to sleep where they will be free from molestation and of fairly good wages and ready money as long as they are content to remain; and at the same time they know that as soon as they are dissatisfied the same conditions await them in another town not far away.

This vagabond habit undoubtedly has its pernicious effect upon the characters of the boys. Drifting about over the country as they do, oftentimes stealing car rides from town to town, they come in contact with the roughest element and learn the vices and acquire the attitude of the typical "hobo" toward work. While an agent of the Bureau was in the office of an Indiana bottle factory the sheriff came to arrest two boys who were wanted for robbery. They had come to the factory a week previous, having tramped from a glass town in the northern part of the State, but, anticipating the sheriff's visit, had disappeared and moved again to some other glass factory.

MEN AS SUBSTITUTES FOR BOYS.

In spite of the large scale on which the expedients described in the preceding sections were carried out the efforts to stock the so-called "boys' occupations" completely, or almost completely, with young boys have been futile. The only conditions under which it has been possible to maintain the traditional proportion of 50 to 75 per cent of boys under 16 as blowers' helpers have been in the cases of small plants situated in fairly large towns where the normal supply of boys is greater than the demand.

Also, apart from the natural difficulties of maintaining such systems of importation as those mentioned, other factors have combined to make the boy much less desirable for glass-factory work than in former years. In those States in which night work for boys under 16 years of age is prohibited and particularly in States such as Illinois and New York, where the legal working day for the child has been limited to eight hours, the boy, even if legally employed, becomes a very disturbing factor owing to the almost complete reorganization of the entire factory necessary to utilize his labor; and, if illegally employed, the factory inspectors in such States make him an even more troublesome factor.

Furthermore, in addition to these outside influences there are three factors within the industry which have greatly contributed to lessening the value of the boy; first, with the increasing demand for his services the boy has learned to demand higher wages so that the difference between his wages and those of an adult or at least those of a youth of 17 or 18 years has decreased very rapidly; second, the increased use of machinery demands larger and stronger youths or men; and, finally, the increasing size of the establishments and the more complete organization of the industry have made it desirable to have a class of employees who are more regular in their work and more likely to abide by their contracts than the boy, who is seldom entirely dependent on his own earnings and consequently, as far as economic reasons are concerned, is free to come and go as he chooses. As a result of all these causes, and particularly within the last five or six years, adults have been introduced into the industry in increasingly large numbers.

UTILIZATION OF ADULT IMMIGRANTS.

By far the most important class of adults thus introduced has been the recent immigrant from southern or eastern Europe—the Slav, the Italian, the Greek, the Hungarian, etc. The number of such males of 21 years and over, it is true, is much smaller than that of the American whites, as will be seen in the two tables following; but the importance of the recent immigrant as a permanent addition to the trade is very much greater than his mere number might indicate.

NUMBER AND PER CENT OF MALE EMPLOYEES IN SPECIFIED AGE GROUPS OF EACH NATIVITY AND RACE.

Nativity and race.	Number.				Per cent of each race of total of all races—		
	All ages.	Under 16 years.	16 to 20 years.	21 years and over.	Under 16 years.	16 to 20 years.	21 years and over.
Native-born of native parents:							
White	6,786	1,944	4,050	792	53.8	57.8	43.0
Colored	722	147	404	171	4.1	5.8	9.3
Native-born of foreign parents:							
English	252	98	138	16	2.7	2.0	.9
French	118	42	70	6	1.2	1.0	.3
German	1,054	380	588	86	10.5	8.4	4.7
Irish	380	134	200	46	3.7	2.9	2.5
Italian	146	83	59	4	2.3	.8	.2
Slav	483	262	214	7	7.2	3.0	.4
Other	202	88	107	7	2.4	1.5	.4
Total	2,635	1,087	1,376	172	30.0	19.6	9.4
Foreign born:							
English	76	22	36	18	.6	.5	1.0
French	58	21	31	6	.6	.4	.3
German	171	54	90	27	1.5	1.3	1.5
Irish	276	9	142	125	.3	2.0	6.8
Greek	25	5	8	12	.1	.1	.6
Italian	919	169	454	296	4.7	6.5	16.1
Slav	588	123	311	154	3.4	4.4	8.4
Other	211	34	110	67	.9	1.6	3.6
Total	2,324	437	1,182	705	12.1	16.8	38.3
Grand total	12,467	3,615	7,012	1,840	100.0	100.0	100.0

NUMBER AND PER CENT OF MALE EMPLOYEES IN SPECIFIED AGE GROUPS, BY NATIVITY AND BRANCH OF INDUSTRY.

NUMBER.

Nativity.	Bottles and jars.				Tableware, shades, cut glass, blanks.				Bottles and jars, tableware, etc., combined.			
	All ages.	Under 16 years.	16 to 20 years.	21 years and over.	All ages.	Under 16 years.	16 to 20 years.	21 years and over.	All ages.	Under 16 years.	16 to 20 years.	21 years and over.
Native-born of native parents:												
White	4,878	1,279	2,946	653	1,908	665	1,104	139	6,786	1,944	4,050	792
Colored	691	134	387	170	31	13	17	1	722	147	404	171
Native-born of foreign parents	1,615	651	836	128	1,020	436	540	44	2,635	1,087	1,376	172
Foreign born:												
Early immigration	209	56	109	44	176	57	92	27	385	113	201	71
Recent immigration	1,508	195	735	578	431	129	246	56	1,939	324	981	634
Total	1,717	251	844	622	607	186	338	83	2,324	437	1,182	705
Grand total	8,901	2,315	5,013	1,573	3,566	1,300	1,999	267	12,467	3,615	7,012	1,840

PER CENT.

Native-born of native parents:												
White	54.8	55.3	58.8	41.5	53.5	51.2	55.2	52.0	54.4	53.8	57.7	43.0
Colored	7.8	5.8	7.7	10.8	.9	1.0	.9	.4	5.8	4.1	5.8	9.3
Native-born of foreign parents	18.1	28.1	16.7	8.1	28.6	33.5	27.0	16.5	21.1	30.1	19.6	9.3
Foreign born:												
Early immigration	2.4	2.4	2.2	2.8	4.9	4.4	4.6	10.1	3.1	3.1	2.9	3.9
Recent immigration	16.9	8.4	14.6	36.8	12.1	9.9	12.3	21.0	15.6	8.9	14.0	34.5

In the first place, the American white adults found in boys' occupations are for the greater part of two types, those who have accepted such work only as a temporary means of gaining a living and those who from lack of ability, initiative, or ambition have remained in a comparatively low paid and generally undesirable class of work. The latter class is of necessity too small ever to be of importance in any industrial system, whereas it is impossible to hold those of the former class for more than short periods without materially increasing the average wage paid. With the recent immigrant, however, the case is entirely different. The wages paid are not far below the wages paid in other classes of work open to them, and the usual increase in the cost of supervision rendered necessary by the employment of non-English speaking persons is obviated by the fact that each works immediately under a skilled man who can at least direct his movements. The position of the immigrant in the industry is also made more striking by the fact that almost all of them are employed in less than a score of the larger establishments, and by the fact that the change has occurred only within the last five years.

This importation of large numbers of immigrants has resulted in every instance from an increase in the size of the establishment beyond the powers of the community in which it was located to furnish anything like an adequate supply of boys. Other factors have also influenced, but the purely economic force has been decidedly the most potent. The movement has been most general in the States of the Middle West, there being scarcely a single large establishment in Illinois, Indiana, or Ohio in which the immigrant of 18 years and over does not form a large if not a dominant part of the unskilled working staff.

In order to bring out clearly the important part now played by these persons, the following table shows the importance of the recent immigrant in each of 16 establishments in which he has established himself as a significant factor:

NUMBER AND PER CENT OF TOTAL MALE EMPLOYEES OF CERTAIN AGE GROUPS AND RACES IN 16 ESTABLISHMENTS.

State.	Establishment number.	Total employees.	Under 16 years.			16 to 20 years.			21 years and over.		
			All races.	Slav, Italian, Greek, etc.		All races.	Slav, Italian, Greek, etc.		All races.	Slav, Italian, Greek, etc.	
				Number.	Per cent.		Number.	Per cent.		Number.	Per cent.
New York	1	35	3	......	......	14	8	57.1	18	17	94.4
	2	56	......	......	......	33	24	72.7	23	16	69.6
New Jersey	3	100	25	3	12.0	63	26	41.3	12	10	83.3
	4	129	17	3	17.6	62	22	35.5	50	36	72.0
	5	92	21	6	28.6	45	16	35.6	26	17	65.3
	6	243	32	10	31.3	162	29	17.9	49	15	30.6
Pennsylvania	7	171	36	11	30.6	102	39	38.2	33	16	48.5
	8	147	67	20	29.9	66	39	59.1	14	12	85.7
	9	84	4	1	25.0	59	38	64.4	21	9	42.9

NUMBER AND PER CENT OF TOTAL MALE EMPLOYEES OF CERTAIN AGE GROUPS AND RACES IN 16 ESTABLISHMENTS—Concluded.

State.	Establishment number.	Total employees.	Under 16 years.			16 to 20 years.			21 years and over.		
			All races.	Slav, Italian, Greek, etc.		All races.	Slav, Italian, Greek, etc.		All races.	Slav, Italian, Greek, etc.	
				Number.	Per cent.		Number.	Per cent.		Number.	Per cent.
Ohio	10	113	5	......	......	83	13	15.7	25	15	60.0
	11	274	33	......	......	139	51	36.7	102	66	64.7
Illinois	12	768	62	6	9.7	395	101	25.6	311	107	34.4
	13	149	68	......	......	68	11	16.2	13	13	100.0
	14	397	96	11	11.5	154	48	31.2	147	143	97.3
Wisconsin	15	146	47	2	4.3	84	19	22.6	15	11	73.3
Missouri	16	175	30	3	10.0	96	36	37.5	49	47	95.9
Total	......	3,079	546	76	13.9	1,625	520	32.0	908	550	60.6

Although the Slav has been utilized to a considerable extent, the majority of these recent immigrants have been either South Italians (Sicilians and Calabrians) or Greeks, either from Greece proper or from Macedonia. The predominance of these two races has been in part the result of chance, but much more largely the result of the better adaptation of these races to the work. The slow-moving, awkward Slav, fitted by nature for heavy work, is at a disadvantage when compared with the smaller, quicker, Iberian types when put at work which requires at most quick movements and care. The difference in efficiency for this class of work is not, however, as great as this broad statement would imply.

These immigrants are obtained by the companies in two ways, either by employing as a labor agent one of the more intelligent members of the particular race desired, who is thoroughly acquainted with the chief centers of supply and can be depended on when wanted to bring in and instruct in the work as many of the men as are necessary; or, less frequently, by making a contract with one of the many foreign labor bosses, Slav or Italian "kings" as they are sometimes known, to supply and maintain the necessary quota of men at so much per head. Both of these systems seem to prove satisfactory, the only difficulty arising during the warmer months, when the demand is great for unskilled labor for railroad construction work During these months, i. e., from the first of May until the end of June, it is the custom of certain firms to increase the wages slightly in order to hold the men.([a])

While it is not the function of this report to deal with this question of the immigrant except as it is related to the subject of woman and child labor, the following brief descriptions written by agents in the field of the method of dealing with these substitutes for boys are of sufficient interest to be quoted:

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[a] One Illinois company raises the rate from $1.35 per day to $1.45 per day during this period.

In September, 1907, this (New Jersey) concern found that there was not sufficient boy labor to supply the demand and that men would not work for 75 and 85 cents a day. As an experiment, therefore, a carload of Italian workmen was imported. As far as the work is concerned, the Italians have proven very satisfactory. They are satisfied with the low wage, and they stick closely to work during the working-day, although they can not be counted on as permanent workers, leaving without warning.

In another (New Jersey) factory for a number of years prior to 1905 there had been a shortage of "small help," and failing even by wholesale importation of large families to obtain the needed number, recourse was had to adult labor in boys' occupations. Two contracting agents were engaged who agreed to furnish a given number of men on notice. One of these agents contracts to supply Italians, the other, Greeks. Both these suppliers of labor obtain their men chiefly from among the immigrants in New York and Philadelphia. Few of the Greeks and Italians at present employed can speak any English. The man who supplies the Greeks keeps from forty to fifty in his boarding house, while the Italian contractor also has a large number in his house. The rest live in several adjoining houses. They are crowded together in a very unhygienic manner in stuffy, dirty rooms. The practice is for each man to get at the store whatever food he wishes and then have the landlady prepare it. The wages paid these men are exceedingly low, averaging a dollar a day, and a reduction of approximately 20 per cent was made in the fall of 1907. Extra time work is very frequent among them, occurring for one man on as often as seven days in two weeks' time, and on from one to five days for others. The man in immediate charge of the factory help stated that it was very difficult to get along with these foreigners, but that he had to have them, lacking boys. The Greek contractor also acts as interpreter, and is carried on the pay roll as working full time at $1.25 per day. He does no manual work in the factory or anywhere about the premises.

In another small New Jersey glass town Italian labor has been used almost ever since the establishment of the factory. They have proved much more satisfactory than the boy labor, because they do as they are told, and stick to work when warm weather comes. The only regret at the use of the adult Italian expressed by the management was the statement of the foreman that the men had so completely supplanted the boy that they would soon have to look to other plants for their apprentices.([a])

In an Illinois town was found a small colony of Greeks, Turks, and immigrants from the Balkans established about five years ago and maintained by the local glass company. The "Greek colony" at present consists of 2 Greeks, 2 Turks, 5 Macedonians, 11 Bulgarians, and 13 Albanians; 33 men, all adults, 8 of whom are from 16 to 18 years of age, the oldest being between 35 and 37. One hundred is said to be a normal number for the colony, there having been as many as 164 at one time. These men all live in six small huts or "shacks" built by the company for the purpose inside a fenced inclosure of about an acre. For the first nine months of the colony's existence the company charged each tenant a rental of 25 cents per month, but now allows them the land and shacks rent free and also furnishes them with coal. The six "shacks" used for sleeping are built in pairs, each consisting of a single sleeping room with two outside windows and one inside window, connecting it with the adjoining shack, and an extension summer kitchen, where the men do their cooking during the warmer months, although in the winter it is done in the room in which they sleep. The sleeping arrangements are quite simple, consisting of shelf-like berths built out from the walls in two tiers. They are, however, provided with mattresses and good blankets. From five to eight men occupy each of the shacks, and usually sleep one to each berth. The closet, which is in the center of the inclosure, is simply a box with an open trough above it; it is said to be moved every year and filled in with clean earth. The interiors of none of the shacks are clean.

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[a] Such boy labor as there still is in this factory is also Italian, and the Italians do not, as a rule, show any adaptability for glass blowing.

A seventh shack is a store, or shop, formerly kept by the Macedonian interpreter, but not now in use. Both the superintendent and the Macedonian interpreter declared this was not a company store, but a private enterprise of the interpreter himself, who bought the stock. The interpreter formerly acted as an agent for the company to bring so-called "Greeks" as laborers to the glass factory, but now that is unnecessary, as plenty of foreigners come of their own accord looking for work in these hard times. He was familiar with the glass centers, where many Greeks and Macedonians are employed in the glass factories. The interpreter has never received more than $2 per day. He now does chiefly the interpreting for the bosses, etc., and sometimes a little laboring work.

A few of the Greeks are pulling leers and receive for this $1.60 per day or per night. This, however, is unusual work for them, because they are not efficient as leer pullers and are only temporarily used in that capacity. For ordinary labor, such as carrying-in, snapping-up, etc., these men are paid $1.35 and $1.45 for either day or night work continuously, or for both alternately. The 10 cents difference in wage is said to be due solely to the difference in efficiency of the men themselves. The Greeks here are considered much less efficient than the average American, or German-American boys; they are slower, more awkward, less nimble, and break more of the ware, the item of breakage being considerable. The superintendent said he only employed Greeks at all because of the scarcity of labor in boys' occupations. He claimed they were less steady and reliable than the American boys and that they did not stand the heat as well in the warm months.

One of the chief reasons for printing these reports in a somewhat full form is to bring out the difficulty, or rather the impossibility, of coming to any definite conclusion as to the relative efficiency of these various races or the desirability of any of them as compared with boys or youths of American birth. The only interpretations that can be put on such varying and contradictory statements is that the results obtained must be wholly determined by the class of men which each establishment secures, either by chance or by choice, and by the way in which they are trained and managed in each particular case. No further generalization on the subject can be made than the statement that the experiments have shown that immigrants new to this country, unfamiliar with the language or customs, and entirely without training in this or any other kind of factory work can do the work in a glass factory for which boys were formerly used.

OTHER SPECIAL CLASSES OF ADULTS.

In addition to these recent immigrants, but in a much more sporadic and incomplete way, adults have been introduced into the boys' occupations from a number of different sources. With the exception of the Negro none of these types is of much numerical importance. Their interest lies rather in the evidence that is furnished that instead of boys under 16 being, as has been so often stated, the only possibility as helpers to the skilled workmen, many other kinds of labor can be used with entire success.

Although a few Negroes have been used in a number of factories in different sections for several years, there has been no attempt either north or south to introduce them in large numbers. This has been due not to the inefficiency of the Negro, for in many ways he is exceedingly well fitted for the work, but rather to the fact that none of the larger factories where the demand for labor is particularly acute, has been so situated that a supply of such labor was readily available. In the factories where they have been used, however, the Negroes seem to have been entirely satisfactory. The statements of foremen and the cursory examination of the pay rolls of a large bottle company where several Negroes were employed show that the Negro was by far steadier than either the boys or the native or immigrant adults employed, and that he showed a far greater desire for extra work in the shape of doing double duty (e. g., carrying in for two shops) or excessive overtime work (one of the Negro men worked on both day and night shifts constantly for a period of four weeks).

The other classes of adults which are of peculiar interest are the old men, cripples, and convicts employed. In a number of factories old men of 55 years and upward were found, chiefly carrying in or holding molds, but also in many instances cleaning off or snapping up. In one case a small furnace at which machine-pressed articles were made exclusively was found to be completely manned by them. Their method of work when compared with the boys is decidedly interesting. The usual boy, in carrying in, rushes madly to the leer with his paddle full of bottles, dumps them in carelessly, and then spends several seconds straightening them up before he rushes back with almost the same speed to get a second load, frequently arriving before it is ready for him, in which case he utilizes the time by making a noise or by throwing bits of glass at the snap-up or the mold boy. The man, on the other hand, walks slowly to the leer, sets up his paddle full of bottles with care, then walks as deliberately back to the shop, arriving usually just as the next load is ready for him. In other words much of the supposed agility, nimbleness, and speed of the boy is nothing but waste effort and interferes with rather than increases the rate of production.

A number of crippled men and youths were also found doing the work of helpers with entire success. One-armed men were, with the aid of a hook attached to the stump of the severed member, carrying bottles to the leers, and cripples who had lost one or both legs or were otherwise deformed were holding molds. In every case these men had been injured outside the glass factory, and had taken up this work as perfectly suited to their impaired abilities. They were doing the same class of work done by all the others in the factory, and in all cases were performing their task as well as other completely sound persons.

The use of convicts was encountered in only one factory, a large Illinois establishment, where under the state parole system a number of them (18 at the time of the agent's visit) were being utilized. Some of these men had been employed for more than a year. All of the convicts were Negroes who had been sentenced to the penitentiary for minor offenses.

Only one other class of adults, the women employed in the furnace room, remains to be considered. This subject, however, is of such importance that it is given special and detailed consideration.

WOMEN AS SUBSTITUTES FOR BOYS.

The use of women in place of boys in the glass factory has always been frowned upon severely by most of the trade, by both employers and workmen; and, while receiving an occasional trial here and there, has never established itself at all firmly in the industry. At the time of this investigation the employment of women at such work was limited to two establishments, although a third had discontinued such employment only recently. Notwithstanding its present limited use, however, the practice is one deserving of the most careful consideration. For, with the growing scarcity of boy labor the search for substitutes may lead possibly to the extension of this practice.

The employment of women in boys' occupations prevailed in Europe at an early date. In 1889 an American glass worker(^{a}) studying conditions abroad, wrote:

> I also observed females working in various capacities in glasshouses, mostly in Belgium and Germany, where they are taking the places of men. In Charleroi I saw women wheeling out ashes from the bottle ovens and wheeling bottles to the packing room; also girls from 12

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[a] Mr. Richard Galbally, the glassworker member of the Scripps League, on Industrial Conditions in Europe, in the Commoner and Glassworker, November 23, 1889.

to 16 years of age in the factories carrying bottles from the blowers to the ovens, something that is not seen in any glasshouse in the United States. I did not see any females employed in the glass works in England. I was not able to find out to just what extent female labor is employed in those countries, but from the opportunities I had of seeing I should say 8 to 10 per cent.

In the early years of the industry in the United States women were probably never employed in the furnace room of glass factories. In 1890 (April 12) an editorial in the Commoner and Glassworker reports that a factory in North Baltimore, Ohio, was using girls in the furnace room, and the surprise expressed by the paper in question would indicate that the practice was a very unfamiliar one. The editorial reads, in part, as follows:

> Recent visitors to this city from the vicinity of North Baltimore, Ohio, informed us that there is a peculiar state of things connected with the ——— flint works there * * * girls ranging in age from 13 to 19 years are employed carrying in and holding molds. The workmen and girls are entirely foreigners. One would hardly imagine that such a state of affairs could exist in this * * * country. * * * To one who knows what work in a fiery glasshouse really is such an idea as a girl being employed there is horribly revolting.([a])

Following this, isolated attempts to introduce women into boys' occupations were occasionally made, but it was not until the blast of 1903–4 that such attempts became at all widespread. At that time several establishments in Indiana, Ohio, and Illinois tried the experiment of substituting white girls and women in boys' occupations. In every instance, however, the sentiment of the community was so aroused by the practice that the experiment was quickly abandoned. In 1904–1906 three bottle factories, two in the Middle West and one in the East, introduced Negro women and girls in the furnace room. In the one eastern establishment the practice did not continue long, but in the two middle western establishments the experiment proved financially successful and was continued. It is upon information obtained in these two establishments that the following description of the substitution of women for boys is based.

Both of the establishments referred to were employing Negro women immediately in the furnace room in the usual close association with the men. In one of these two factories, moreover, white women were also being employed at work analogous to that of one of the customary boys' occupations, but under conditions which completely segregated them from the men. As the fact of segregation or nonsegregation of the sexes at furnace-room work is of vital importance, it is desirable to treat the work of the white women entirely separately from that of the Negro women.

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[a] The truth of this report is acknowledged in a letter from the owner of the factory.—Commoner and Glassworker, April 26, 1890.

WHITE WOMEN AND GIRLS.

In introducing white women in the place of boys it was not desired by the management to mingle the sexes in the hot, coarse work of the furnace room. Therefore a special building was erected, which permitted of the employment of women at a certain portion of the boys' work without bringing them into immediate contact with the men and boys. A brief description of this type of furnace-room building is necessary to an understanding of the work done by the white women of this establishment.

The distinctive feature of this type of building is that it is two storied. The furnace extends from the foundation through both floors, but the pots for the glass melting are set entirely on the second floor and here the blowing and molding is done. The first floor contains the annealing leers. A chute connects the two floors, the bottles when blown and finished being deposited in the chute and thus conveyed to the first floor, where they are removed and carried to the annealing oven. It is this latter work which the white women perform. They work entirely on the lower floor and are not brought into direct contact with the regular workers on the upper floor.

The chutes are of wood, about 3 inches wide and 2 inches deep, with corrugated bottoms. There is one chute to each of the shops in the furnace room, and at a point about halfway to the ground floor two of these single chutes come together in a Y shape to form what, for convenience, may be called the main chute, although it is of the same dimensions as the subordinate ones. Each main chute is, therefore, fed by two shops. Down to the junction point of the branches the path of descent is very steep (at least 45°) and the bottle slides down very rapidly, but beyond this point the chute assumes a less acute angle and terminates in a slight upward curve. By this means the speed of the bottle is considerably slackened by the time it reaches the asbestos bumper at the end. The speed, however, is great enough to cause breakage if the chute is not kept clear.

Each of the main chutes is tended by two girls, one of whom, the "picking-up" girl, sits at the end of the chute and with a pair of tongs takes up the bottles as they descend and lays them upon an asbestos-covered paddle, which, when full, the other girl, known as the "carrying-in" girl, takes to the leer. Two paddles are used, one of which is filled while the other is being carried to the leer. The average distance from the chute to the leer is about 20 feet. Owing to the different sizes of bottles made the number carried by the girl each trip varies greatly, but in order to save walking is always as many as the paddle will hold. In the case of 2-ounce bottles the number is usually 12. In these two occupations the picking-up and carrying-in girls exchange every half hour, so that each gets an equal share of sitting and walking and is also relieved of the monotony which follows continuous attention to one occupation. All the "chute girls" work under a foreman.

From the manufacturing standpoint the chute system seems to have worked well, at least with the smaller prescription ware, of which this firm has a large output. Both the managers and the blowers state that the loss on such ware is no greater than where the bottles are carried directly to leers situated on the same floor. It can be used advantageously, however, only with bottles of comparatively heavy weight and small capacity which hold their heat well and are able to resist possible concussion at the bottom of the chute.

From the standpoint of the employment of women at such work two contrasting facts are to be noted. In the first place the evil moral conditions which seem always to result from the mingling of men and women in the furnace room are entirely obviated by the chute system. The women work in an entirely separate room, and are never brought into contact with the men of the establishment other than the foremen. So far, therefore, as the moral conditions of the work is concerned no criticism can be made that would not be equally applicable to factory work in general.

Physically, however, the work of the "chute" girl can not be commended. The work is not heavy, in the sense that there are heavy weights to be lifted, and the physical strain of walking, standing, or stooping is not particularly severe, as the regular interchange of occupation between the girl "carrying in" and the one "picking up" gives each an equal period of standing and sitting. The unpleasant features are the heat and the danger of accident. In colder weather the heat is not severe, but in the warmer weather the temperature of the whole working space is raised to a high degree. Measurements taken on a warm spring day showed that the temperature in front of the leers, where the carrying-in girls stand when depositing the ware, was over 100° F. At the place where the picking-up girl sits the temperature was less, but even there ranges as high as 95° F. In order to place the bottles properly in the leers, it is necessary for the girls to stand very close and look directly into the flaming interior. In doing this, their heads are brought so close to the mouth of the leer that their hair is sometimes singed.

The danger of more or less severe accident is inherent in the "chute" system, at least with the present construction of the chute. The danger lies in the possible breaking of the bottles in their passage down the chute, and the consequent scattering of sharp and hot particles of glass. Such breakage may occur in several ways, all the result of carelessness, but all not improbable of occurrence. The bottle may be put in the chute improperly and given such an impetus that it jumps out of the chute on the way and flies to pieces on the brick floor; or, the "picking-up" girl may fail to keep the chute perfectly clear, in which case a collision will break the next descending bottle; or, two bottles may be started down the branch chutes at the same time so that they meet at the point where the branches join and, breaking, scatter their fragments widely. That such breakages do frequently occur is evidenced by the number of scars on the arms and necks of the girls and by the holes burned in their dresses. As far as could be learned, there had never been a permanent injury to the eyes of a chute girl from the breaking of the bottles, but the minor eye accidents which are reported to have occurred during the present year would indicate the constant possibility of serious injury.

The scattering of hot particles of glass sometimes causes the dresses of the girls to be set on fire. Because of the heat of the working room, the girls wear extremely thin cotton dresses, which are easily ignited. One instance of this was scheduled as having occurred during the year of the investigation. In this case the dress of the girl concerned was almost entirely destroyed by the fire, and serious bodily injury was averted only by the presence of mind of herself and of the other girls. The girls reported that they were accustomed to watch each other all the time, and to throw water on any one of them immediately when a spark is seen on a girl's dress.

These "chute" girls do not work at night. The wage is 88⅓ cents per day for 8½ hours work from Monday to Friday ([a]) and 7¾ hours on Saturday. The real value of the wages, however, is somewhat reduced by the heavy wear upon the shoes, the walking being very constant and over a floor often littered with broken glass, and also by the singeing and burning of the clothes.

The general opinion of the girls in regard to the work is favorable. The chief reasons for this attitude are as follows: First, the work is fairly clean; second, the girls are allowed to talk and sing; third, there is no night or overtime work; and fourth, Sunday is a complete holiday. Inasmuch as no very serious accidents have occurred, they make light of the possible dangers and consider the scars of their burns with some degree of pride. Heat is complained of during the hot weather, but the general attitude is well expressed in the following statement of one girl: "It don't last long, and after you get used to it, it generally don't hurt you." It is of much significance to state, however, that the only mother who had seen the work was very much opposed to it on account of the danger, and tried hard to persuade her daughter to leave the work, although the daughter's earnings were absolutely necessary to the support of the family.

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[a] Girls under 16 work only eight hours per day.

NEGRO WOMEN AND GIRLS.

As has been pointed out, the employment of Negro women in the furnace rooms of the two establishments in which they were being employed presents an entirely different problem from that of the employment of white women as "chute" girls. The white women were working at boys' occupations, but not in the furnace room itself, whereas the Negro women were working directly in the furnace room with the men. As the conditions of the work in these two factories are quite the same, a description of one factory will suffice for both, and, in a general way, will also suffice for the one other known factory in which colored women were previously employed in the furnace room but had been discontinued shortly before the time of the investigation.

The cause of the introduction of the Negro women into the furnace room was quite the same as that for the introduction of the white women as "chute" girls, the difficulty of securing a sufficient number of reliable boys and the higher wage which would be demanded by men for doing the work. As has been mentioned above, the attempt had already been made in several parts of the country to introduce white women directly into the furnace room, but in every case the attempt has been unsuccessful, because of the opposition of the public and even of the trade. The sentiment for the protection of women has not been broad enough to disregard color and extend itself to Negro women, and the only difficulty encountered seems to have been in securing and properly training colored women to do the work.

In the particular establishment being described the women were first given places in the furnace room as snap-ups and carry-ins, but the work proved so much more difficult and so very different from what had been expected that nearly all of them gave up their employment within two hours of entering the factory. One, however, more persistent than the others, returned the following morning and through her as an agent several more women were secured to fill the vacated places.

From the beginning these women were used at the occupations of snapping up and carrying in, but it was not until some time later that they were tried as mold tenders. Gradually, however, they were tried at the work, and some of them became fairly steady at this new employment. Usually, however, the women do not like to tend molds. Their objections are, first, that it is very hot, especially during the warmer months; second, that the liability to burns from flying bits of glass and from their clothing catching on fire is much greater than in any of the other occupations; and, finally, that most of them do not feel themselves suited to do the work properly. However, several of the women who snap-up occasionally change off with the mold boy for periods of a half hour or so in order to get an opportunity of sitting down.

At the time the reports for this investigation were prepared there were in these two establishments 51 Negro women employed in "boys'" occupations. Of these, 9 worked on the day shift only, all of them being employed at snapping-up. The remaining 42 worked both on the day and night shifts, the day shift of one week becoming the night shift of the next week. Of each shift, 19 were employed at snapping-up and at carrying-in and 2 at tending molds. The ages of the women ranged as follows:

NUMBER OF NEGRO WOMEN AT WORK ON DAY SHIFT ONLY AND NUMBER ON AND DAY NIGHT SHIFTS ALTERNATELY, BY AGE.

Age.	Negro women at work—		
	Day and night.	Day only.	Total.
16 to 20 years	17	4	21
21 to 30 years	15	3	18
31 to 40 years	6	2	8
41 to 50 years	4	....	4

In regard to their conjugal condition, 24 were single, 22 were married, and 5 were widowed or separated from their husbands.

In view of the importance of the subject and the small area in which the conditions existed, a somewhat intensive study was made of the work of these women, and particular care was taken in securing as far as possible well-substantiated information on every phase of the subject. The inquiries were not limited to the workers themselves, but were extended to physicians, teachers, and others whose opportunities for observation gave them a special insight into the subject.

In regard to the physical effects of the work itself the testimony was very conflicting. Several of the women reported loss of weight and continued nausea as a result of their work, but an equal number reported that they had gained in weight and improved in health generally. The heat of the furnace room was the feature most commonly complained of, but on the whole the Negro women seem to stand the high temperatures better than do the boys. A number of cases of actual heat prostration were reported. Usually the resulting suffering lasted only for a day or two, but sometimes it was several days before the person affected was able to work again in the heated furnace room. The prostration was sometimes caused by drinking excessive quantities of ice water and the suffering intensified by a too sudden cooling of the person affected, either by the application of ice water or by exposure to the compressed-air pipes.

The practice of working one or more night shifts when on the day shift, or vice versa, commonly known as "doubling up," does not seem to have occurred frequently, but where it had been done was complained of as extremely exhausting. During the year of the investigation it did not appear that either compulsion or persuasion had been used by the managers to induce women to do such extra work, and consequently while many had worked one or two double shifts, none had done enough of this work to produce any marked effects. The women exceedingly disliked to do this overtime work, and seldom applied for it except during the period before Christmas.

A number of small burns on the arms and face from the glass particles which fly from the iron in the process of cleaning off were reported and also three rather serious burns, due in one case to carelessness and in two cases to malice on the part of the older boys and men.

The moral aspect of the subject of the employment of Negro women in the furnace room is, on the whole, of much more importance than is the question of the effect of the work on health.

Practically all of the women interviewed spoke of the profanity which the men and older boys were accustomed to use in speaking to them. If the work went slowly or there was a large proportion of breakage, it served as an incentive to an outburst of profanity on the part of the men and older boys. Some few of the women seriously objected to this, but a large number seemed to regard it jocosely or as a matter of course, a few boasting that they gave the men word for word every time they were cursed. An equally common complaint was in regard to the men carrying on obscene conversations with the women while they are at work or during the meal and rest periods. This applies particularly to the snapping-up girls, who are brought into speaking distance of the finishers during every few moments of their work. Many of the women, it was said, did not at all object to this, but rather encouraged it. Some of the younger girls and older women, however, did object and complained repeatedly. The tendency toward obscene jesting seemed to have been aggravated by the fact that one or two of the women sometimes wore dresses cut short at the knee, ostensibly in order to make it possible to work easier, and also by the fact that during the hot months both men and women work with the least possible clothing.

Conditions were said by all interviewed to have been much worse at night than during the day. The most objectionable actions were reported to have occurred between the first tempo (8 to 8.15 p. m.) and shortly after the dinner hour, which occurred at 10 or 11 p. m. After this time the work and the monotony were beginning to have their effects, so that the employees were too listless to take an interest in anything except their tasks. The evil conditions at this period were due, partly at least, to the fact that the employees, both men and women, were accustomed during the dinner hour to drink beer in considerable quantities, the men drinking theirs inside a near-by saloon, while the women drink outside the saloon. No one, however, ever drinks inside the inclosure of the factory, there being a strict prohibition against such a practice.

It is during the latter part of the meal hour that the grosser immoralities may be most readily indulged in. Everything favors such actions, and several women have at various times been discharged from one of the establishments for discovered immoral relations with the men. A feature favoring such relations is the fact that in both establishments the toilets for both men and women are outside of and at some distance from the factory. In one of the establishments in which young Negro women were at first employed conditions soon became so bad that it was necessary to discharge almost the entire number and replace them with older women. This statement may be considered in connection with the general remark of a number of the older women that the glass factory was no place for any but a "settled" woman. A few of the females employed may be denominated as "settled" women, but by far the greater number were young, in some cases mere girls, and approximately one-half were unmarried.

Aside from the evident evil effects of the described conditions upon the Negro women themselves, it is to be emphasized that in the same factory, and side by side with the women, there are employed a number of white and Negro boys and youths. At the time of the investigation there were thus employed in the two factories referred to 19 boys under 16 years of age (15 white and 4 Negro) and 75 youths between 16 and 19 (50 white and 25 Negro). Of these there were 6 boys under 16 (4 white and 2 Negro) and 45 youths (34 white and 11 Negro) who worked at night as well as by day.

MACHINERY AS A SUBSTITUTE FOR BOY LABOR.

Machinery as an element of importance in the glass industry is a matter of barely a dozen years. The machine for pressing glass had been known and utilized for three-quarters of a century; but glass blowing, the much more important branch of the industry, was essentially a handicraft. Moreover, it was the almost universal conviction of those in the industry that glass blowing must always remain a handicraft, that glass, from its very nature, could not be blown by machinery. It was not until 1896–97 that this conviction was shattered by the perfection of a blowing machine which was commercially successful. This machine was somewhat crude and was restricted in its field to wide-mouth bottles and jars, such as common fruit jars; but the possibility of mechanical blowing had been demonstrated, and improvements followed in quick succession. To-day a considerable portion of the field of glass blowing has been invaded by machinery and the uninvaded portion is in possible jeopardy.

The primary aim of the newly invented blowing machine was the displacement of skilled labor. The trade of glass blowing is highly paid, and in the average hand factory the wage list of the blowers is the largest item of expense. Any device that would lessen the size of this item was naturally to be welcomed by the manufacturer. The displacement of the lower-paid unskilled laborers, the boys, was less considered; but almost invariably the machine resulted in such displacement. Per unit of output machine production requires less boy labor than does hand production. Moreover, the machine as a rule requires a boy of more mature growth than does the hand shop. Thus the machine results, normally, not only in decreasing the number of boys employed, but also in raising the age average of those who remain.

The importance of these facts is evident. Already machinery has had an important effect in reducing the number of children in the glass industry, and, if it continues to extend its field, child labor will continue to be reduced in importance. At present it is impossible to say what will be the outcome of the struggle between the old and new methods of glass blowing. Developments have been rapid in the past few years and the period of change is not yet at an end. Whatever the result of such changes may be, it is safe to say that machinery will play the most important part therein and that the position of the child in the industry will be seriously affected.

To appreciate the significance of this statement, it is necessary to have an outline understanding of the present position of machinery in the glass industry. With this in view, the present section attempts to give a brief survey of the most important machines and mechanical devices in use and to indicate their several effects upon the workers. Particular effort has been made to show fully the degree in which each machine or device has tended to supplant "boy labor," to raise the age level of those remaining, and to change the nature of their work. An exhaustive or scientific account of glass machinery is not attempted, but the nature of the subject requires some detail.

CARRYING-IN DEVICES.

The operation of carrying-in, reduced to its lowest terms, consists simply in the transport of an article a distance of from 10 to 75 feet and its deposit inside a leer. Two conditions only must be complied with—the ware must be kept from the chilling that follows too long exposure to the air and the separate articles must be placed upright and fairly compact within the leer. Thus stated, the operation appears as one to which machinery, or at least some mechanical aid, could be applied with ease. Nevertheless, the historic and still prevalent method of carrying-in is by means of boys with long-handled paddles, the boys journeying almost constantly to and from the leer, seldom carrying more than three or four pieces on a trip and, at times, only a single piece. In rare cases, when the character of the ware permits, crates holding a dozen or more articles are used and the number of trips thereby diminished.

The method of carrying-in by paddle seems, on the face, crude and uneconomical, and such, indeed, it has appeared at times to many manufacturers. But the cheapness of boy labor, combined with the traditions of the trade, long prevented any earnest effort to introduce mechanical devices in substitution, or in aid, of human carrying-in. Recently, as child labor has become less obtainable, attention has been more earnestly directed toward such devices, as yet with little unanimity, but with promise for the future. The appliances which have so far been put into use may be divided into three classes, warming stoves, mechanical conveyors, and automatic conveyors.

WARMING STOVES.

The stove, or "peanut roaster" as it is more commonly called in the trade, is a device for keeping ware from chilling while waiting for a "load" to accumulate. Its purpose is to reduce the number of trips to and from the leer. The stoves in use vary in capacity and in some details of construction, but the thing itself is of such a simple character that a description of the type will suffice. To take a particular one, as example, the warming stove is a rectangular iron box, dimensions 1 by 1¼ by 2 feet, heated by gas and containing two sliding trays. Into these trays the ware is placed as finished, and, as each tray is filled, it is taken out bodily and carried to the leer. A tray will hold from five to ten dozen 4-ounce bottles and proportionate numbers of other sized ware. One man carries in usually for five or six shops, in a few cases for only four, and in an exceptional case for nine.

The effect of the introduction of stoves is to reduce the number of persons carrying in by 75 to 80 per cent, and, what is of most importance from the view point of child labor, to eliminate entirely the employment of children in this occupation. In none of the factories covered by this investigation is there an example of trays from a "peanut roaster" being carried in by boys under 16 years of age, and it seems very unlikely that they should be so employed. Carrying a heavy tray of ware is distinctly a man's work, because of the strength and height required and because of the necessity of adult intelligence in the handling and manipulation of large trays of breakable ware.

In the factories scheduled 84 warming stoves of various types were found in use. These employed 22 men and displaced 148 carrying-in boys. Of the carrying-in boys displaced, it is fair to assume that at least 30 per cent would have been under 16 years of age, this being the present proportion of children to all the boys in the occupation. Thus the use of stoves has so far resulted in the total displacement of at least forty-four children.

MECHANICAL CONVEYORS.

When the trays of the stove are carried in by hand the size of the tray, and to some extent the size of the ware that can be handled, is limited to the weight a man can carry. So far as the stove is concerned, it could be made indefinitely capacious and capable of holding ware of very large size. This increase in capacity, moreover, is made possible by the introduction of a simple device for swinging the trays to the leer instead of carrying them by hand. Nearly every factory using the continuous leer carries its pans from the rear to the front of the leer by means of pulleys swung to an overhead track. By extending this track to the shops, the trays of the stoves can be pushed back and forth by means of a swing. Larger loads can be pushed than can be carried, and as a consequence the number of trips can be considerably diminished. In one factory where this device is in use 75 pint or 30 quart jars are regularly carried upon each journey.

A more developed form of the overhead-track conveyor is of the following construction: An overhead track circles the furnace and passes the leer doors. From this track cars are suspended, each car consisting of a bed plate upon which rests a sliding tray. The course of the car in its circuit and the position of the shops are so mutually adjusted that the tray of the car passes alongside of, and on an exact level with, the stands upon which the shops place the ware as finished. The tray is hand pushed, and as the pusher passes each shop he rakes the bottles from the stand into the tray. A flat scraper is used for this purpose and an experienced operator hardly needs to stop in order to rake off the bottles in passing. After the tray is filled with bottles the car is pushed to the leer door. The operator slides the tray forward into the leer and by a movement of the lever shoves all the collected bottles from the tray onto the pans of the leer. The tray is then returned to the car and another journey begins. Each of these cars has a capacity of about 3 dozen pint bottles or 2 dozen of the quart size. In the only factory where this particular type is used three men displace about ten boys. Men have been used exclusively, so far, and there is little probability of boys under 16 ever being used at such work. The mechanical conveyor, as does the warming stove, acts as a displacer of child labor.

AUTOMATIC CONVEYORS.

The most perfect mechanism for doing the work of carrying in is the automatic conveyor. Its principle of operation is that of an endless belt, extending from the leer to the shop where the ware is being made. The articles as finished at the furnace are immediately placed upon the belt and by it carried singly to the leer mouth. With the most developed type of conveyor the articles are then automatically transferred from the belt to the leer pans. With the simpler type, however, the articles must be transferred by hand. In such case a boy, usually known as the shoving-in boy, is stationed at the leer, and as the belt brings the articles he lifts them and pushes them into position within the leer mouth.

The work of the shoving-in boy is, therefore, similar to part of the work of the ordinary carrying-in boy, but there is no walking connected with the duty of shoving-in and the position is in a locality of considerable heat. The number of conveyors requiring the use of shoving-in boys, however, is very small, as most of the conveyors in use are of the type which automatically deposits the ware in the leer.

There is no question that the automatic conveyor is perfectly feasible with large ware of a more or less uniform size, such as fruit and milk jars. With smaller ware of irregular sizes, such as prescription bottles, it has been less successful. In a few cases the conveyor has been tried and discarded, the reason, however, being rather that the particular conveyor tried was imperfect than that the principle itself was impracticable. On the whole there seems little doubt that the automatic conveyor can be adapted to large classes of glassware. Of the factories scheduled in the present investigation three were completely equipped with, and two were installing automatic conveyors. The displacement of boy labor incident to the use of the automatic conveyor system is well shown in the experience of a large jar establishment. Here the shop equipment is such that under the old system 120 carrying-in boys would be needed. Under the automatic system as used no boys under 16 are used at all, the only attendant labor being that of 10 men of some mechanical skill to watch and tend the machinery.

PRESSING MACHINES.

There are two classes of machines used in molding glass. These are known, respectively, as the pressing machine and the blowing machine, their names being indicative of their difference in character. The blowing machine in its operation imitates, more or less exactly, the movements of the hand blower, compressed air being substituted for human breath. It is, therefore, adapted, in principle at least, to all varieties of ware that can be blown by hand. The pressing machine, however, is based upon another principle from any used in the hand shop and its field of work is strictly limited. In the present discussion of these two classes of machines the pressing machine is given priority of consideration because of its earlier invention and because it was the mechanical forerunner of the blowing machine.

The pressing machine is of great simplicity. It consists of only two essential parts, a mold into which the molten glass is put and an overhanging plunger shaped to the internal form of the article to be pressed. The plunger, descending, enters the middle of the mold, and pushing down upon the soft glass presses it into the desired shape. The exact character of the operation depends upon the type of the machine, whether it is of the stationary or of the rotary type. In the stationary machine the molds, usually two, rest upon a stand and permit of being moved by hand. As one mold is filled and pressed it is moved aside, the second one placed in position under the plunger, and, the first one having been emptied, the process is repeated. In the rotary machine a series of molds revolve about a central standard. As the molds pass the gatherer they are filled and are emptied at a later stage of their revolution.

As the plunger must permit of easy withdrawal from the mold after the pressing is done it follows that the class of ware capable of being made on this machine is limited to that class in which the opening, or bore, tapers downward. In other words, they are not capable of making such ware as ordinary bottles or any hollow ware of which the neck is smaller than the body. Also, when the mold used is solid, a block mold, as it is called, the exterior of the article must be of downward tapering shape in order to permit its removal after pressing. Such articles as smooth tumblers, smooth nappies, plates, and all flat ware are made in block molds. In order to make ware with irregular exterior on the press machine it is necessary to use a joint mold, one that can be opened for the removal of the article after pressing. By using such a mold the outside appearance of the ware can be varied indefinitely, and even articles with handles, such as beer mugs, can be made. The pressing machine may also work in conjunction with the human blower, this being frequently done in the making of cheap lamps. In such case the body of the lamp is blown by hand, but the foot and stem are pressed, and the two afterwards joined.

The labor force on a press machine consists of one gatherer (sometimes two), one presser, and usually one boy known as a "turn-out." The gatherer, with his pipe, gathers a "ball" of glass and suspends it over the mold. The presser with a pair of shears cuts off the correct amount of glass, which drops into its place. The immediate descent of the plunger, regulated sometimes by the presser, sometimes automatically, flattens the glass into the shape of the mold. When the block mold is used the presser removes or "turns-out" the ware by the simple process of upending the mold and tapping on the bottom. When the joint mold is used the presser does not remove the ware, but slides the mold to the "turning-out" boy. This boy opens the mold, removes the article, and recloses the mold for another operation. The above description of "turning-out" refers to the stationary machine. On the rotary machine the "turn-out" boy stands on the other side of the machine from the presser and removes the ware as the molds pass. With both types of machines the character of the boy's work is essentially the same. It is also identical with the work of the "turn-out" on the blowing machines, and as the character of this work is considered in connection with these machines it need not be entered into here. The ware must still be carried to the leer, of course, and whether it is done by hand or conveyer is governed by the same considerations as governed in the hand shop.

The question of the effect of the pressing machine upon the number of boys employed is not of importance from the viewpoint of the present discussion. Its original introduction undoubtedly caused a considerable displacement of boy labor. But this was long ago. The pressing machine dates back to an invention of 1825, and, with one exception, it has been generally used for many years in the making of all those varieties of ware to which it is adapted. During several generations of "boys" it has been an integral part of the industry. It has no present day effect on boy labor, and has had no such recent effect, and a discussion of the subject would be of historic interest only.

The exception referred to above is the application of the press machine to the making of cut glass "blanks." Pressed "blanks" are made in the same manner as other pressed ware, except that more care is bestowed upon the finishing process. The value of a "blank" depends upon its freedom from defects and upon its color character. Pressed ware almost invariably bears some marks of the machine, and has a dull color. External defects can be removed in the later process of cutting, but the internal irregularities must be gotten rid of before the "blank" is cooled. This internal smoothing is done by a process known as "fire polishing," the article immediately after pressing being placed beneath descending flames which partially melt and smooth the inside of the article.

The use of the machine for pressing "blanks" is still somewhat novel and its exact possibilities not determined. "Pressed" cut glass, notwithstanding its rapid strides toward perfection, is still regarded in the trade as somewhat of an interloper, and is disdained as "imitation" by a certain class of the purchasing public. Pressed blanks can, of course, be of the flatter shapes only, and, as a result, this standard, the standard of shape, is now frequently used by those purchasers who wish to avoid the so-called imitation ware, but are not able to make the distinction from the ware itself.

As a result of these several causes the machine has had little effect upon handmade cut-glass blanks. The pressed blank created its own market, and the market of the blown blank is still probably quite as large as it would have been if the machine had not entered this field. Such being the case the condition of boy labor has not been changed by the use of the machine; no displacement has taken place; the new boys aided by the machine have had their places created for them. In number these boys are very few.

BLOWING MACHINES.

The term "blowing machine" is here used in the sense commonly employed in the trade; that is, to include those machines in which the blowing is done mechanically by compressed air, but in which the feeding of the glass to the machine is done by hand. The addition of a mechanical feeder to the mechanical blower is an addition of such revolutionary importance to the blown-glass industry that machines combining these two features may well be specifically classed, as is done in the trade terminology, as automatic blowing machines. Also, for convenience of treatment the machine for blowing paste-mold ware is excepted for separate notice.

The first invention embodying the principle of the modern blowing machine was patented in 1882, ([a]) but it is only during the past dozen years that the machine-made bottle has been a factor of commercial importance. The early machines operated upon what might be called the double-mold method. A portion of glass is deposited in the first, or press, mold and pressed upon by a descending plunger in such a manner that the neck of the bottle is formed and a wind cavity left in the body of the glass. The partially formed bottle is then transferred to a second, a blow mold, upon which a compressed-air pipe is lowered and the bottle thus blown. It is to be noted that there are two distinct operations performed on the machine, pressing and blowing, and that the method of performing the first is simply an adaptation of the previously described pressing machine. This principle of a double operation has been retained in all later machines, and the chief developments have been largely in the matter of the shape of the machine and arrangement of the molds. Of these developments the most radical was the use of a revolving framework rimmed with a series of molds. With this type the feeding is done on one side of the machine and the blowing and pressing performed while the mold is being revolved around to the taking-out boy. A less radical change in construction was the use of the three-mold system. Here the presser stands on one side of the table and the "take-out" on the other, and between them three sliding molds are arranged. As each mold is filled the presser operates the plunger which forms the neck, and immediately the taking-out boy pulls the mold across and connects it with the air pipe. The first mold is not emptied until the third one has been connected, thus giving time for blowing and partial cooling without the necessity of the shop's waiting, as would be the case if only one mold were used.

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[a] Twelfth Census, Manufactures, 1900, Part III, Special Report on Glass, p. 973.

The skilled operators on the usual type of blowing machine are a gatherer, occasionally two, and a presser. The gatherer collects the glass on his pipe and deposits it in the mold; the presser shears off the right amount of glass and operates the pressing lever. The occupations are both highly paid, the members receiving wages approximating those paid the displaced blowers. The further elimination of this highly paid labor becomes, therefore, the endeavor of manufacturers, and in one place a recently developed device has reduced the number of skilled operators to one—a gatherer—who, besides feeding the glass to the machine, operates the pressing apparatus by means of a mechanical device.

The majority of machines employ only one boy, known usually as the "turning-out" boy, but on certain types of machines an additional boy, termed the "blowing-up" boy, is used. When both boys are employed the duty of the "blow-up" is to open the first mold after the neck of the bottle has been pressed, to transfer the partially made bottle to the second mold, to operate the lever which controls the compressed air, and, finally, to close the first mold for another operation. The duty of the "turn-out" is to open the second mold after the bottle is blown, to remove the bottle to the stand for carrying-in, and to close the mold for the subsequent operation. On machines which require only one boy his duties are usually those of the "turn-out," the work of the "blow-up" being done by the machine itself or by the presser. On some machines the mold opens and closes automatically so that all the "turn-out" has to do is to remove the completed bottle and place it on the stand. On the three-mold machine two boys are generally used when small ware is being made and one when the ware is large. On the whole, however, notwithstanding the varieties of blowing machines, the character of the boy's work is substantially the same on all types.

From the standpoint of child labor the net result of the blowing machine is the displacement of the mold boy and the snapping-up boy and the substitution of the machine boy. This substitution is a matter of importance, changing, as it does, the character of the work required of the boys and affecting the number of boys employed.

The changed character of the work will be first considered. The machine is invariably placed close to the furnace in order that the gatherer may gather the glass and deposit it in the mold with as little change in his position as possible. This makes all the operators on the machine work in proximity to an intense heat, although the position of the boys is from 2 to 6 feet farther from the furnace than is that of the gatherer or presser. The actual physical labor required of the machine boy in opening molds and lifting bottles is about equivalent to that required of the mold boy or snapping-up boy. The machine boys stand at their work almost invariably. Seats are sometimes provided, but the general practice of the boys would seem to show that the work is of a character that can be easiest done while standing. As a rule, there is no interchange of occupations. In some few of the factories where carrying-in boys are used, occupations are occasionally rotated, but in the great majority of cases the machine boys remain constantly at their one occupation. Finally it is to be noted that the machine requires stricter attention than the hand shop, with the result that the boys on the machine work under a higher nervous tension. It is difficult to make a clear explanation of this difference, but it appears in an interesting fashion in the conduct of the boys while at work. The boys in the hand shop are often given to considerable boisterousness, talking, singing, or whistling while at work. Machine boys, as a rule, display little of this spirit. They seem to work under more mental pressure, are more subdued in conduct, more attentive to their tasks.

The primary object in the use of the blowing machine is to reduce the necessary amount of highly-paid skilled labor. Almost invariably however, it has a similar tendency toward the reduction of the amount of boy labor required. The extent of such displacement varies with the character of the machine and the character of the ware made.

With the data available it is impossible to make any satisfactory estimate of the total displacement of boys attributable to the use of machines. The importance of its total effect may be suggested, however, by the following estimate of displacement for two of the most widely used machines. Variation between factories, both in working forces and output, require the use of rather broad averages in attempting to estimate displacement.

Machine No. 1.—Three-mold machines, for making ink, vaseline, and similar small, wide-mouth bottles. Shop consists of one gatherer, one presser (both skilled adults), and three boys (two boys on the machine and one carrying in).

In making 2-ounce bottles this machine requires, on the average, one boy for each 13⅓ gross of product. This may be compared with the output data on similar ware when made by hand. The data from two large factories over a considerable period of time show that, averaging the two factories, one boy is required for each 7½ gross. this comparison indicates that the machine requires, per unit of product, almost exactly one-half of the number of boys required in the hand shop.

Machine No. 2.—Two-mold machines, for making large-mouth ware, such as milk jars. Shop consists of one gatherer, one presser (both skilled), and two boys (one boy on the machine and one carrying-in).

This machine, in making quart milk jars, requires one boy for each 9 gross of product. The making of the same size milk jars by a hand shop requires at least one boy for each 5 gross of product. This comparison shows a boy labor displacement by the machine of almost one-half.

In addition to reducing the number of boys necessary per unit of product, the blowing machine tends strongly to raise the average age of the boys employed. Nearly all the machines demand a boy of considerable height and of some maturity of judgment. These requirements are not necessarily the possession of a particular age, but as a rule boys under 15 are not satisfactory workers for the machine, and in many establishments it has been found that it is rarely economical to employ boys under 16.

The general higher age level for machine boys as compared with the displaced mold boys and snapping-up boys is shown in Table X. The exact figures are as follows: Of mold boys and snapping-up boys, taken together, 30.6 per cent are below 16 years of age, whereas in the case of machine boys only 18.4 per cent are below 16 years of age.

The preceding discussion of the blowing machine omits consideration of a recently introduced English invention. Until this new type of blowing machine appeared there had been no successful use of such a machine with any but wide-mouth bottles and jars of the rather coarser grades, such as pickle, milk, and ink bottles. The English machine, however, is adapted to the making of smaller-neck ware—ketchup, beer, and, possibly, bottles of even a finer grade.

In appearance the new machine is different from the old type, but the operative principle is essentially the same. The lump of molten glass is deposited, as usual, in a pressing mold. This mold is then revolved on a horizontal axis until the mold opening points downward. Thereupon a plunger rises, instead of descending as in the old type of machine, and presses a neck upon the lump of glass. This done the pressing mold withdraws and a blow mold, shaped to the body of the article, swings into place and incloses the glass of the partially formed article. A compressed air pipe is now brought in contact with the neck opening, the air admitted and the body of the article blown to the mold pattern. The bottle is now finished and, after being removed by a taking-out or machine boy, is carried to the leer for annealing.

The machine is fitted with two sets of molds. One gatherer attends to both, the time occupied in filling one mold being just sufficient for the previously filled mold to complete its work.

The total working force of the machine as it is operated in a typical factory consists of one gatherer, two pressers, one for each mold, one taking-out boy, who attends both molds, and one carrying-in boy for two shops. The work of the presser is to cut off the glass from the gatherer's pipe and to operate the pressing and blowing levers. It is only semiskilled work, and it is still disputed whether ordinary laborers can not be used. It is, however, essentially men's work, and the occupation can not be regarded as a boy's occupation. The work of the taking-out or machine boy is quite similar to that of machine boys on the older machines. It can be done by a younger boy, but the older boy is preferable.

To handle the product of a machine, therefore, an average of 1½ boys would be needed. A hand shop making the same ware under the same conditions would require 2½ boys (1 mold boy, 1 snap-up, and 1 carry-in for two shops). As the product of the machine is little if any greater than that of a hand shop, it would appear that each of these machines results in the displacement of one boy. As yet, however, the number of such machines is so small the effect upon boy labor has been very slight.

THE PASTE-MOLD BLOWING MACHINE.

The ordinary blowing machine will not make seamless ware such as lamp chimneys. Such work requires the use of a paste mold—requires, that is to say, a mold lined with carbon paste and the constant revolution of the article in the mold while it is being made. (See p. 41.) To design a machine capable of making such ware was a more complex problem than that of making the simple bottle-blowing machine. The problem was solved, however, and since 1898 the paste-mold chimney machine has been a very prominent factor in the trade. Paste-mold tumblers have also been successfully produced.

The paste-mold machine is modeled upon the movements of the human operative even more exactly than is the iron-mold machine. The imitation, indeed, is almost perfect. A series of molds, resembling outwardly the paste molds of an ordinary hand shop, are revolved upon a central pivot. Exactly above each mold there is a socket for the holding of a blowpipe, this socket being so adjusted that when a blowpipe is placed therein the suspended ball of glass fits into the mold and the upper end of the pipe connects itself with the compressed-air valve. As the machine revolves each mold in turn opens at the proper place for the reception of the pipe with its "gather" of glass, closes while the blowing is being done, opens again for the removal of the ware, and finally dips into a receptacle of water.

This immersion is necessary in order to keep wet the paste which coats the inside of the mold.

The work proceeds as follows: The gatherer gathers upon his pipe a ball of glass, rolls and shapes it upon the marver, and hands it to a second attendant, known as the "feeder." The feeder blows into the pipe until the soft roll of glass assumes the shape of an elongated bulb. His position is close beside the machine, opposite the point where the mold opens to receive its "feed." Into the passing mold the feeder swings the bulb of glass, the attached pipe being clamped into the socket above. The mold closes and compressed air coming downward through the pipe distends the bulb to the shape of the mold. The mechanical rotation of the pipe keeps the glass constantly turning in the mold and thus prevents the formation of seams upon the ware. After a half rotation of the machine, during which time the article is completely blown, the mold opens, a taking-out boy removes the pipe with the chimney attached and hangs it in a rack. From there it is taken by the cracking-off boy, who with a sharp tap of a wet iron cracks the chimney from the pipe, and places it upon a stand for carrying in. The pipe he cleans and returns to the blower. Two cracking-off boys are required for each shop.

In making an estimate of the effect of the lamp-chimney machine upon the employment of boys it is necessary to note that besides the machine there are two other and earlier methods of making chimneys. The earliest of these, in point of time, is known as the "offhand" method. Here the skilled workers blow the chimneys complete without the aid of molds or even gauges. One gatherer and one blower work together, constituting a shop, and if the tops of the chimneys are to be crimped a boy is added to the shop to do this work. No annealing is necessary, so that when the chimney leaves the shop it is ready for packing. This is the simplest "shop" organization in the glass business.

The second of the earlier methods of making chimneys is by means of the paste mold. This is precisely the same method as that used in making tumblers (p. 41), the chimney being twisted in a mold lined with paste. Like a tumbler, a chimney so made must be annealed and must pass through a subsequent series of finishing "processes," cutting off, grinding, etc., before it is ready for the market.

Thus, while an "offhand" chimney shop requires at a maximum only one boy and no after operations, the paste-mold method employs at least two boys in each shop and a number of women, girls, or unskilled men laborers to remove the chimneys from the leer, cut off, grind, and glaze, and otherwise complete articles which by the offhand process are finished almost as soon as blown and by the same persons.

As the machine works precisely upon the paste-mold principle, it leaves the chimney in the same condition as does the human blower. It must be annealed after blowing and is not cut off, glazed, etc., until after it has been annealed.

As all three of these methods of chimney making are in use to-day, a study of the effects of the machine upon child labor must make the comparison with each of the other earlier methods. Also the effects upon woman labor must be noted, as in the offhand method women can not be used, whereas in the other two methods women are commonly used for all the finishing occupations. The numbers as given are only estimates based on figures of production for a limited period and in a limited number of factories. They are, however, sufficiently accurate to show tendencies.

COMPARATIVE NUMBER OF PERSONS EMPLOYED IN MAKING LAMP CHIMNEYS BY THREE METHODS (THE BASIS BEING THE UNIT OF PRODUCT MADE BY A UNION OFFHAND SHOP EMPLOYING 25 CRIMPING BOYS.)

	Offhand.		Paste mold.	Machine.
	Union.	Non-union.		
Skilled men	50	38	39	16
Boys (all ages)	25	19	39	24
Females	....	....	15	15

The figures given show that, as compared with the original offhand method, the machine has very slightly affected the number of boys necessary per unit of product, but has added a number of women and girls for the finishing processes. As compared with the paste-mold process, the machine has decreased by a third the number of boys employed and has not affected the number of women.

AUTOMATIC BLOWING MACHINES.

The automatic blowing machine is an invention of very recent introduction, having been first used with commercial success only some ten years ago, and then with only a limited class of ware. In this short time, however, it has so rapidly extended that it is the disturbing factor in the blown-glass industry of to-day, and, to all appearances, the arbiter of that industry's future.

The Owens bottle machine is mechanically complex, but its operative principle is comparatively simple. A perpendicular axis supports a series of radiating arms, each arm terminating in a combination mold. By the revolution of the axis these arms are swung in succession through an opening in the side of the furnace and directly over the tank of molten glass. The size of the opening necessary for this purpose renders a specially constructed furnace, with a revolving tank an integral feature of the machine. On passing over the tank the arm dips, the mold touches upon the molten surface and sucks up its capacity of glass. Thereupon the arm slowly emerges from the tank, and as it rises the mold opens and shows a cylinder of glass suspended by a collar, within which the neck of the bottle has already been formed. The first mold having dropped away, a second mold rises and closes upon the cylinder of glass. For a few seconds it remains closed while the body of the bottle is being blown, then opens and exposes the completely formed bottle. This is removed by hand or machine and immediately placed in a glazing machine to have its neck glazed and polished. The first mold has meanwhile resumed its original position and another operation is begun.

The distinguishing feature of the Owens machine, thus briefly described, is the automatic feeding device. Former machines had dispensed with the blower, and even with the presser, but this was the first machine to render the gatherer unnecessary. Here, indeed, no human intervention is necessary between the filling of the tank and the removal of the blown bottle. Skilled machine attendance is still necessary, and usually unskilled labor is used to remove and carry in the finished ware. But that is all. The glass blower cedes his place to the machinist.

The Owens machine, as operated at present, makes opening for a maximum of three boys' occupations, taking-out, sticking-up, and carrying-in. The taking-out boy, with the aid of tongs, removes the bottles from the machine and places them in the "polisher." The polisher, or glazer, consists of a table partially hooded and rimmed with a series of cups, into which the bottles are put. The revolution of the table carries the bottles under a flame of gas, the heat of which melts and smooths the roughness on the mouths of the bottles. As a bottle is returned to its starting point, it is removed by the "sticking-up boy" and placed on a stand for carrying in. In one factory the "take-out" removes the bottles from the polisher, as well as places them therein, thus dispensing with the "sticking-up boy" and increasing considerably his own work. A mechanical "take-out" has been devised, but so far has not been employed with most of the machines.

A discussion of the character of the boy's work on the Owens machine centers upon the occupation of taking out. Carrying in is the same here as in the hand shop, and sticking up, so called, is not difficult in itself nor severe in its effects. The work of the taking-out boy, however, is severe, primarily because of the heat in which he works. His place is in the angle formed by furnace and machine, and this of necessity, because it is not until the revolution of the arm is more than three-fourths completed that the opening of the second mold exposes the bottle for removal. Thus he works almost against the furnace wall and not more than 4 feet from the tank of seething glass. The heat is intense. To lessen it, a screen is built between the boy's position and the opening in the furnace, and an air pipe blows cold air upon his back, but the position of the machine prevents the screen being more than partially protective, and the fanning with cold air produces an artificial chilling without lessening very greatly the deadening effect of the heat.

The Owens machine is normally operated continuously, twenty-four hours in the day, six days in the week, and every week of the year, with the exception of the necessary stops for repairs. This continuity of operation is, of course, not necessary, but the economy derived therefrom is so great that this method of work has been the practice from the beginning. As a result, the labor force on the machine must also be continuous, and the boys work either upon two shifts of twelve hours each or upon three shifts of eight hours each. In either case, the work itself makes no provision for meal or rest periods. The necessary remedy is usually provided by a system of rotation of occupations and by the use of extra boys. In one establishment four boys are assigned to each shop, although only three boys are necessary at any one time. By rotating occupations every quarter hour each boy rests one-fourth of his time and takes out only fifteen minutes in every hour. In another establishment, where the taking-out boy also does the sticking up, an extra boy is assigned to each two shops. The system of rotation is here arranged by the boys themselves, the maximum rest period for each being twelve minutes out of every hour of work time.

The introduction of the Owens machine affects the comparative number of boy employees in various degrees, according to the character of the ware manufactured. Beer-bottle making, for instance, was entirely hand work before the coming of the Owens machine. Milk bottles, on the other hand, had been made for some years largely by mechanical blowing machines, and are still so made in considerable quantities. In both instances the Owens machine employs less boys per unit of product. The displacement, however, can not be computed with exactness, owing to the fact that the machine is of such recent introduction that neither the speed of work nor the constitution of the shop is as yet definitely determined (1908). The following comparisons must therefore be taken as provisional. An average hand shop of a faster type, working on pint beer bottles, requires one boy to each 10 gross of bottles produced. An Owens machine making the same ware requires one boy to each 15 gross of product. This represents a displacement of one-third in the amount of boy labor. In the case of milk jars the comparison is less to the advantage of the Owens machine. A developed type of mechanical blowing machine in making quart milk jars will require one boy to 9 gross of jars. The Owens machine, making the same ware, requires one boy for approximately 11 gross of product.

The preceding figures of displacement apply to all persons of whatever age engaged in boys' occupations. The reduction in the number of boys under 16 years of age, however, is very much greater, bordering indeed on the verge of elimination. The comparative figures are as follows: In the hand-bottle shops about one-third the boys employed are under 16 years of age; in the Owens machine shop only 1 boy out of 143 scheduled was under 16 years of age. The machine employees are as yet too limited in number to form a satisfactory basis for comparison, but the above figures of percentage show conclusively the tendency of the Owens machine toward the elimination of children.

This reduction in the number of children employed results from the fact that for the machine, operators of considerable maturity are preferred. The reasons for this are substantially the same as those assigned in a previous discussion of press and blow machines, namely, the requirement of height, the cost of carelessness, and the severity of at least one portion of the work. It is not at all impossible that a boy under 16 should have the necessary qualifications, but it is rather uncommon. Furthermore, if such a boy be as efficient as a man he is no more so, and the dictum of some hand-shop employers that the younger the boy the better has no point here.

Also, it would seem that the motive for the use of children would have less force in the machine establishment. In a hand-shop factory the wage bill is the predominating item of expense, and as the pay scale of the blowers in the great majority of factories is uniform, the saving of even a few cents on the daily wage of each boy may become a matter of importance. The Owens-machine plant, on the other hand, is so costly of equipment, represents such a large investment of capital, that a slight increase in the wage list of the unskilled labor is a factor of much less importance. Such being the case, other considerations, such as the desire to avoid all ground for criticism or the wish to end a long and expensive controversy, may well influence the employer to dispense entirely with child labor, even though a small cost is incurred thereby.

The foregoing comments apply to the condition of boys' occupations on the Owens machine at the time the field work of the investigation was done. Since then, however, still further efforts have been made to use mechanical devices for doing all the work described above as boys' work. Whether or not all of these devices have been so far successful, it seems certain that they will ultimately become an integral feature of the machine. All such devices are, indeed, better adapted to machine than to the hand production, as in the former the uniformity in rate of speed and in the size of ware eliminates two of the greatest obstacles in the way of the introduction of machinery for the doing of boys' work. It seems only a matter of a very short time when in the blowing of at least certain grades of ware every operation preceding that of taking the finished ware from the leer will be done by machinery with no human assistance except that of machinists.

In addition to the Owens bottle-blowing machine there is only one other automatic machine in operation at present. This is of very recent introduction, and its use is confined entirely to the establishment conducted by its originators. In appearance and operative principle the latter machine bears little resemblance to the Owens invention. It is less complex and shows more clearly its mechanical development. It represents, in fact, simply the culmination of a series of improvements made upon the older rotary blowing machine as described earlier in this section. This machine required two skilled workers, a gatherer and a presser. The establishment referred to first improved upon this by devising an automatic pressing apparatus, thereby reducing the number of necessary skilled workers to one, the gatherer. Attention was then directed to the supplanting of the gatherer, and recently success was attained.

The principle employed was the opposite of that used in the Owens machine. The mold of the Owens machine gathers its glass by passing over the tank, dipping down and sucking up a portion of the glass. The molds of the newer machine also revolve upon a central standard, but the molds in revolving, instead of passing above the tank of glass, pass below an extended portion of the furnace tank. As the mold thus passes a gate valve opens and the proper amount of glass flows down into the mold. Continuing its revolution, the mold is first descended upon by a plunger which presses the neck and then by a compressed air pipe which blows the body of the article.

The whole operation is entirely automatic. Each machine requires one attendant, a take-out, to remove the completed ware from the molds. But no skilled glass workers are needed. As automatic conveyors are used in connection with the machine no carrying-in boys are used.

The work of taking out on this machine is quite similar to that of the corresponding occupation on the Owens machine. The position of the machine, and in consequence that of the boy in relation to the furnace, is also quite similar. The work is so little skilled that an average worker can learn his duties within a week or two. The work, however, is not regarded as suitable for children, and so far no persons under 16 and few under 18 have been employed at the work, nor is it probable that they will be so employed. This machine may be regarded as a total eliminator of child labor.

The exact amount of this elimination is difficult to compute as the machine is too recent to have reached its greatest efficiency. In this one establishment, however, it may be estimated roughly, but with reasonable accuracy, that 448 mold boys, snapping-up boys, and carrying-in boys would be necessary under the older hand method to do the present work of the 40 machines. Assuming that if the hand method were used 30.6 per cent of these boys would be under 16 years of age (the proportion at present existing in bottle shops), it would appear that 137 children have been displaced.

As, however, fruit jars have not been made by hand in any quantity for several years, it is better to make comparison with the superseded nonautomatic blowing machine. Under this method 186 machine and carry-in boys would be necessary to do the work now done by the automatic machine. Assuming, as earlier, that 18.4 per cent (the proportion at present existing in blowing machine shops) of these boys would have been under 16 years of age, the total number of boys displaced would be 82.

So far this machine has been used only with fruit jars, a variety of ware of a rather rough finish. With these it has been entirely successful, but it is uncertain whether or not its working principle can be adopted to finer grades of ware and to articles with smaller necks.

COMPARATIVE EFFICIENCY OF BOYS UNDER 16 YEARS AND MALES 16 YEARS AND OVER IN BOYS' OCCUPATIONS.

It is not uncommon in a single furnace room to find the "shopboys" of widely different ages. A boy of 14, a youth of 18, and a full-grown man may be not only working side by side, but may be engaged at precisely the same kind of work. Nevertheless, even under such favorable conditions, a comparison between such persons in the matter of their relative efficiency is one of utmost difficulty. It is not as if the boys were separate, independent workers, each with a specific output. The working unit is the shop, consisting of both skilled men and unskilled boy "helpers."

To revert to the organization of the shop, it will be remembered that the skilled men (two blowers and one finisher in the case of most bottles) are pieceworkers, and it is they who determine the output of the shop. The skilled men set the pace, the only question of efficiency for those in boys' occupations is the question of keeping up with the shop. The real issue is: Do the blowers have to curtail their production in any given case because older persons can not keep up whereas younger persons could? Thus the work of the members of a shop are so closely correlated that it is impossible to measure the productivity of individual members.

A similar difficulty results when an attempt is made to compare the work of different shops. It may be easily possible to find in the same establishment two shops, in one of which the helpers are all boys under 16, and in the other all of 16 or over. But even if, in such a case, the daily output of one shop is noticeably larger than the other, it can not be assumed that the difference is due to the age of the "boys." It may be due to the difference in the respective abilities of the two groups of skilled men. Thus this method of comparison is futile.

The only direct method of comparison which would seem at all capable of giving precise results would be to study the differences in output of a shop in which the skilled men remained unchanged, but in which "helpers" of varying ages were successfully introduced. If such a plan were tried and precise data kept of the results it might be possible to arrive at exact conclusions in regard to the comparative efficiencies of "boys" of different ages, or simply of boys under 16 as contrasted with boys over 16. Such a plan, however, was impracticable of attempt in the present investigation, and none of the visited factories possessed any records of the kind indicated.

In the absence of precise data of the kind mentioned it becomes necessary, therefore, to depend upon indirect evidence in attempting to determine the comparative efficiency of boys of different ages at furnace-room work. The most pertinent of such indirect evidence is the testimony of those individuals who might be supposed to have learned from experience with all kinds of boys which kind was of the greatest efficiency. With this end in view, attempt was made to secure a specific expression of opinion upon this subject from the employer or responsible manager or foreman of each scheduled establishment possessing a furnace room.

An opinion was obtained in nearly every case, but in several instances its value was vitiated by the failure to keep the matter of efficiency clearly separate from that of wage. These have been eliminated, as have also those opinions which were not clearly specific. After this elimination 132 opinions remain. These are briefly summarized in the following table. It will be noted that the information presented refers solely to the work of boys employed in shops in which the work is done by hand. At machine work of all kinds, as in the occupation of carrying-in, when reheating stoves, or "peanut roasters," are used, the superiority of older persons is too generally acknowledged to require discussion.

COMPARATIVE EFFICIENCY OF BOYS AS REPORTED BY 132 ESTABLISHMENTS.

	Number of establishments reporting.	Per cent.
Boys under 16 years more efficient	57	43.2
Boys of 16 years and over more efficient	13	9.8
Boys of all ages equally efficient	40	30.3
Boys under 16 years more efficient on small ware, but boys of 16 years and over as, or more, efficient on large ware	22	16.7
Total	132	100.0

It will be observed that the comparisons of this table are between boys under 16 on the one hand and all boys of 16 and over on the other. A number of employers in stating their belief in the greater efficiency of boys of 16 years and over, had in mind youths of 16 to 20 and not adult men, and would have denied that full-grown adults were as efficient as children. For the present purpose, however, it does not seem necessary to inquire into this aspect of the matter, and for the comparison between the efficiencies of child labor and the labor of those of 16 and over the data of the table offer a fair guide to the existing opinions of glass manufacturers.

The most significant point of the table is the indication of conflicting ideas and impressions. Each of the 132 opinions is for a factory which was using at the time, or had recently had experience with, both boys under 16 and boys of 16 and over at furnace-room work. This being so, it is of much significance to note that while 57 (43.2 per cent) favor the greater efficiency of the child an almost equal number, 53 (40.1 per cent), believed that children were at least no more efficient than boys of 16 and over. The remaining 22 favored the young boy for work in shops making the smaller ware, but on the larger ware considered the older boy at least equally efficient.

This almost equal division in the opinion of experienced glass manufacturers can lead to but one conclusion—that in whatever degree or under whatever circumstances the boys under 16 may be more efficient than the boy of 16 and over, the difference can not be very great. On the contrary, indeed, it would seem that the majority opinion favored the older boy to an even greater extent than the table would indicate; for the traditions of the trade are so much in favor of the child that the opinions of many of those who favored the child were no doubt influenced, although unconsciously, by an inherited trade idea which they themselves had never given an actual test.

Moreover, it should be noted that the greater efficiency attributed to young boys in certain factories is a result of shop arrangement.

It was long a trade custom, and the custom is still observed by many manufacturers, to arrange his shop equipment and to distribute the workers on the assumption that small boys were to be used. Thus the mold was often placed so near the ground that only a small child could crouch beneath its handles, or the space reserved for the snapping-up boy was too limited for use by anyone but a small child. Such crowding, however, is entirely unnecessary, and it has been found true in many factories that, by raising the height of the mold and by opening up the working space, larger boys or even men can be employed with perfect satisfaction.

In regard to the contention of some employers that, while the older boy may be as efficient in the handling of large ware, for small ware the young boy possessses a superior efficiency, it may be said that, measuring efficiency over a short period, the contention is probably correct. The making of small articles, such as 1 or 2 ounce prescription bottles, proceeds with great rapidity, and at such work the small size and youthful agility of the child may give him an advantage in the necessarily quick movements of hand and body. It is highly questionable, however, whether the disadvantage of the older boy or man in this respect is not more than compensated for by his greater stamina over a long period of time and by his greater regularity of attendance. The irresponsibility of the young boy, with its resulting irregularity of attendance at work, has always been a serious complaint against him. It is very generally agreed that the older boy or man is a much more responsible worker, much more to be counted on to appear at his work each day. The money value of this is difficult to determine, but it has been a factor of a strength sufficient in itself to influence many manufacturers to dispense with young boys and employ older boys and men even at a somewhat higher wage.

COST OF PRODUCTION OF GLASS WITH REFERENCE TO THE COST OF BOY LABOR.

In a consideration of the subject of child labor in the glass industry an inevitable and vital question is that of the relative cost of such labor. It may be taken for granted that glass manufacturers desire to employ boys under 16 at furnace-room work in preference to older boys or men for one or more of three reasons: Because the younger boy is more efficient, or because he is less difficult to obtain and keep, or because he is cheaper. The sufficiency of the first two reasons has already been discussed. Whatever their sufficiency may be it is nevertheless true that, in the mind of the average employer, the third reason, cheapness, is the influential one, the one which is emphasized. Children are employed as mold boys, snapping-up boys, carrying-in boys, etc., primarily because they will work for a lower wage than will boys of 16 or over. That they do work for a lower wage is not a matter of dispute. The wage data gathered for this report shows that in any community the pay of the furnace-room boys tends to vary directly with their ages. ([a]) Up to the age of 21 years it is correct to say that the older the boy the higher his wage.

Granting, therefore, that the employer does effect a saving by employing young boys, the question of the amount of such saving naturally arises. If a glass manufacturer employing boys under 16 exclusively and paying them the usual wages of such boys should suddenly substitute boys of 16 and over, paying them the usual wages of such persons, what would be the additional cost to him per unit of product?

The character of the glass industry is such that this question can be answered with considerable exactness. The item of boy-labor cost in a given article can be isolated and a study made of the variations in costs which would follow changes in the wages of boys. Such a study, however, must be made for each article separately. The relative importance of the item of boy-labor cost is not the same for all varieties of glassware, nor even for different sizes of the same class. If boy labor is found to form a given percentage of the total cost of manufacturing an 8-ounce bottle it does not necessarily follow that it forms the same percentage of the manufacturing cost of a pitcher or of a tumbler, nor even the same percentage of cost of bottles of the same grade but of different sizes.

For all necessary purposes, however, it will be sufficient to limit the study to a few articles of a representative class. The class of ware selected for consideration is that usually known under the term "prescription bottles." The reasons for this choice are: (1) The manufacture of prescription bottles is one of the most important single branches of the industry; (2) the proportion of boys to men engaged in this branch is close to the average for the whole industry; (3) the articles made are thoroughly standardized as to weight, capacity, and name; (4) the manufacture of prescription bottles involves the use of no machinery of any type. Within the large class of prescription bottles study will be made only of three selected sizes, bottles of the following respective capacities: 4-ounce, 8-ounce, and 16-ounce. Taken together these three are thoroughly representative of all size variations.

The method adopted has been that of glass manufacturers generally, and that used in the Bureau's cost of production report for 1891. That is to say, all the items of expense, materials used, etc., except the cost of blowing and cost of boy labor, ([b]) has been charged into the "mix," or the material used to produce the glass. The melted glass in the pot therefore represents all the expenses of the establishment properly chargeable to cost of production, except to two items to be charged later—i. e., blowing and boy cost.

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[a] See Tables VII to X, at end of this volume.

[b] In the report of the Bureau for 1891 the boy labor was charged into the cost of the glass in the pot.

The cost data here used is from a representative prescription-bottle house. Three and a half years' production for the plant is used as a basis for an average cost. The result is a total product weighing 16,801,327 pounds, the cost of the glass melted in the pot being $189,941, or $0.011305 per pound, as shown by the table.

COST OF PRODUCTION OF GLASS IN THE POT AT FOUR SPECIFIED PERIODS, 1901 TO 1907.

	1901-2.	1905-6.	1906-7.	Sept.-Dec., 1907.	Total, four periods.
Boy labor	$18,747	$16,659	$18,012	$5,773	$59,191
Blowing	$68,535	$58,886	$72,380	$22,799	222,600
Other expenses, cost of glass in the pot	$49,632	$53,528	$58,657	$28,124	189,941
Weight of finished product, in pounds	4,551,712	4,530,460	5,443,676	2,275,479	16,801,327
Cost per pound of glass in the pot (less cost of grinding)	$0.0109	$0.0118	$0.0108	$0.0124	$0.011305

It will be seen from examination of this table that the pound cost of glass in the pot has been ascertained by dividing the total operating expenses, less those for boy labor and blowing, by the total output in pounds. The cost per pound of the pot glass, as thus determined, it will be observed varies but slightly for the four separate periods, and this being so the average for the combined periods may be conveniently taken for purposes of reckoning.

This average cost per pound is $0.011305. From this as a basis the cost of a gross of 8-ounce capacity bottles, weighing 7 ounces each, can readily be obtained by multiplying the weight of one bottle in fractions of a pound (in this case $\frac{7}{16}$) by 144 and multiplying the result by the cost of single pound. The pot cost of a gross of 8-ounce capacity bottles is thus shown to be ($\frac{7}{16} \times 144 = 63$ pounds × $0.011305) $0.7122.

The cost of blowing is fixed by annual agreements with the blower's union, on a piece-rate basis (the gross of bottles being used as a unit), and has not changed within the period. The price list on 4-ounce bottles of the type used here is 70 cents per gross; 8-ounce, 90 cents; 16-ounce, $1.19.

The cost of the remaining item, boy labor, depends upon three related factors, the number of boys to the shop, the daily output of the shop, and the rate of wages paid the boys. None of these factors is absolutely uniform in the several establishments engaged in making this class of ware. But the normal variations are not great, and for the present purpose it is satisfactory to employ as standards the average of the conditions in a group of factories. On this basis the factors mentioned may be accepted as of the following values: (1)

A shop making 8-ounce flint bottles normally possesses one mold boy, one cleaning-off boy, one snapping-up boy, and will divide the services of a carrying-in boy with another shop, making a total of 7 boys for 2 shops; (2) the average daily output of a shop making 8-ounce ware is subject to considerable variations, but as the data from 11 important establishments shows an average of 19 gross, this may be accepted as a standard; (3) the average wage of all shopboys, in all the visited factories engaged wholly or almost wholly in the manufacture of prescription bottles, was $1.10 per day. It is to be noted that this average is for all shopboys irrespective of age and is based on an 8½-hour day, but it may be accepted as fairly representing normal present conditions.

With the factors thus determined the boy labor cost represented in a gross of 8-ounce bottles may be easily obtained. A 3½-boy shop at the average wage of $1.10 per day would cost $3.85 per day, which sum divided by the average daily output of the shop in gross, 19, gives $0.2026 as the item of boy labor cost in each gross of such bottles made.

As a result of thus constructing, item by item, the cost of making bottles of 8-ounce capacity, 7 ounces weight, the total cost of a gross appears as follows:

Cost of glass in the pot	$0.7122
Cost of blowing	.9000
Cost of boy labor	.2026
Total cost	1.8148

It remains now to apply the information thus obtained to the answering of the original inquiry. In what degree does the substitution of adult labor for child labor affect the cost of production? To do so it is merely necessary to take the items of pot cost and blowing cost as fixed and to substitute different rates of wages for the boys in place of the existing average of $1.10 a day used in the above computation. Such substitutions could be made indefinitely, but for the present purpose it will be merely necessary to consider two extreme possibilities, first, that of all the boys employed being under 16 years of age and, second, that of all such boys being of 16 years or over. By this means specific contrast may be made of the cost of manufacturing with child labor exclusively and the cost of manufacturing with child labor entirely eliminated.

In making such comparison it is proper to assume that each of these groups of "boys," the children and the adults, are paid the average wage which they were found to be receiving in the factories scheduled in this investigation. The average wages were, for boys under 16, 91 cents a day, and for boys of 16 and over $1.17 per day.

The following table shows the contrasting figures of total cost which would result from the employment exclusively of either group of "boys." For the purpose of comparison with these extreme conditions the figures of the earlier table are repeated, showing the cost of production under what may be assumed to be the existing situation of the "boy" labor force in the industry being composed of both children and adults who are receiving the average daily wage of $1.10.

COST OF A GROSS OF 8-OUNCE (CAPACITY) BOTTLES MANUFACTURED WITH DIFFERENT CLASSES OF "BOY" LABOR.

Character of "boy" labor force.	Cost per gross for—			
	Glass in pot.	Blowing.	Boy labor.	Total cost.
Children only, at 91 cents per day	$0.7122	$0.90	$0.1676	$1.7798
Children and adults, as at present, at average of $1.10 per day	.7122	.90	.2026	1.8148
Adults only, at $1.17 per day	.7122	.90	.2155	1.8277

The indications of this table are clear. Assuming, for purposes of illustration, that a factory employing boys under 16 only and paying them the average wage of such boys, 91 cents a day, should suddenly substitute boys of 16 and over and be required to pay them the average wage of such persons, $1.17 per day, the result would be to raise the total cost of production of a gross of 8-ounce bottles from $1.7798 to $1.8277, an increase of 4.79 cents, or 2.68 per cent.

Such an extreme substitution as the one suggested, however, has little probability in fact. There is no factory in the country employing boys under 16 exclusively at boys' work and only one with as many as one-half of its boys under 16. A more accurate comparison, therefore, would be not between the hypothetical régime of complete child labor and a régime of complete adult labor, but between the present régime of mixed child and adult labor and that of complete adult labor. In other words, the comparison should be made between the totals of lines 2 and 3, and not between the totals of lines 1 and 3. If this is done it would appear that the increase in the the cost of producing a gross of 8-ounce bottles, incident to the elimination of all shopboys under 16 years of age, would be from $1.8148 to $1.8277, an increase of 1.29 cents, or 0.711 of 1 per cent.

This, therefore, may be accepted as the probable increase in the cost of producing 8-ounce prescription bottles if the boys under 16 at present employed were eliminated from the industry and boys of 16 and over were put in their places. It is to be remembered, however, that this estimate is based on two assumptions: First, that the older boys and men would be as efficient as the displaced children, and second, that a supply of older boys and men would be forthcoming at the wage at present paid such persons. As to the first assumption, it may be concluded from the information presented in other sections that the difference in efficiency between the children and adults is certainly not very marked, and it is apparently just as probable that the adult would be more efficient as that he would be less efficient. Concerning the second assumption, no specific judgment can be made. It would seem probable, however, that to effect a complete substitution of boys of 16 and over for those under 16 years would cause some increase in wage above the present wage of boys of 16 and over.

To complete this study of cost of production as related to labor of boys of different ages, computations similar to those made for the manufacture of 8-ounce bottles are made for 4-ounce and 16-ounce bottles. Taken together these three sizes are so fully representative of all prescription bottles that conclusions from their respective costs of production may well be accepted as representing the industry as a whole. In continuing the study, however, to include 4-ounce and 16-ounce ware it is not necessary to make the analysis as complete and detailed as with the 8-ounce bottle. As the methods of arriving at results are quite the same, it will be sufficient to state the simple facts in each case. The pot cost of the glass per pound, it will be remembered, does not vary with the changing size of the ware.

Four-ounce prescription bottles.—A prescription bottle of 4-ounce capacity, of the same narrow-mouthed "French square" type as the preceding 8-ounce bottle, weighs 4 ounces. For blowing such ware the blower's piece rate is 70 cents per gross, and the daily output per shop (averaging the output data of nine establishments) is 24 gross. In making 4-ounce bottles the cleaning-off boy is frequently dispensed with, but, owing to the small size of the ware, often two snapping-up boys, and sometimes two carrying-in boys, are used by one shop. Thus the average number of boys in a shop making 4-ounce bottles may be considered as being five.

From these data, using the same methods as were employed in estimating the cost of 8-ounce bottles, the following comparative data of cost are obtainable:

COST OF A GROSS OF 4-OUNCE BOTTLES MANUFACTURED WITH DIFFERENT CLASSES OF "BOY" LABOR.

	Glass in pot.	Blowing.	Boy labor.	Total cost.
Children only, at 91 cents per day	$0.4070	$0.70	$0.1896	$1.2966
Children and adults, as at present, average of $1.10 per day	.4070	.70	.2291	1.3361
Adults only, at $1.17 per day	.4070	.70	.2438	1.3508

From this it would appear that the increase in the cost of production of a gross of 4-ounce bottles by the elimination of all children now employed and the substitution of boys of at least 16 years of age would be 1.47 cents ($1.3508 – $1.3361), or 1.1 per cent.

Sixteen-ounce prescription bottles.—A 16-ounce bottle of the same class and character as the preceding 4-ounce bottle weighs 12 ounces. The rate paid for blowing such wares is $1.19 per gross, and during the course of the day an average shop (to use an average of the output data of seven establishments) produces 15 gross. The number of boys in a shop making this size of bottle may be as low as two and one-half per shop, one mold boy, one snapping-up boy, and one carrying-in boy for two shops. The more usual number, however, is three, one carrying-in boy being used for each shop, and this may be taken as the average in estimating cost. From this information, the cost items entering into the making of 16-ounce bottles are obtainable, according to the methods previously followed.

COST OF A GROSS OF 16-OUNCE (CAPACITY) BOTTLES MANUFACTURED WITH DIFFERENT CLASSES OF "BOY" LABOR.

	Glass in pot.	Blowing.	Boy labor.	Total cost.
Children only, at 91 cents per day	$1.2209	$1.19	$0.1820	$2.5929
Children and adults, as at present, at an average of $1.10 per day.	1.2209	1.19	.2200	2.6309
Adults only, at $1.17 per day	1.2209	1.19	.2340	2.6449

From the figures here given it would appear that the increase in the cost of production of a gross of 16-ounce bottles by the elimination of the child labor at present employed would be 1.40 cents ($2.6449 – $2.6309), or 0.532 per cent.

Thus it is found that the increase in cost of production due to the substitution of older boys at a higher wage rate is more marked with the small 4-ounce bottle than it is with the 8-ounce bottle, but, on the other hand, is decidedly less marked with the larger 16-ounce bottle. The exact amount of the increase in each case is shown in the following table, which shows for the 4-ounce, 8-ounce, and 16-ounce bottle, respectively, the cost of production of a gross of ware, under what may be termed the present régime of a boy labor force composed of boys of various ages, working for an average wage of $1.10, and the estimated cost if children were eliminated and boys of 16 and over were substituted at the existing rate for such boys, $1.17 per day.

INCREASED COST OF MANUFACTURING THREE SIZES OF BOTTLES IF CHILD LABOR WERE ELIMINATED.

Character of bottle.	Cost of gross of bottles with—		Increase in cost.	Per cent increase in cost.
	Boy labor force as at present.	Children eliminated.		
4-ounce	$1.3361	$1.3508	$0.0147	1.100
8-ounce	1.8148	1.8277	.0129	.711
16-ounce	2.6309	2.6449	.0140	.532

For prescription-bottle making as a whole, it is believed that the information submitted is sufficiently accurate for the purpose intended. In any case, all the computations have been made in such fashion that any desired substitution may be made.

The list selling price for 4-ounce French square prescription bottles is $10.25 per gross, with "80 and 10 per cent off," as trade discount, bringing the net manufacturer's selling price down to $1.85. For 8-ounce the list is $14, with discounts, reducing it to $2.52. For 16-ounce the list is $20.25, the net price being $3.65 per gross. Bottles are used essentially as wrappers for their contents, and it is upon the contents, not the bottle, that the purchaser's attention is fixed. The bottle is not always a separate item in the cost. When it is, that price is 5 cents, practically, regardless of the size of the bottle, i. e., $7.20 a gross. Whether the manufacturer, jobber, druggist, or public took the increase in cost resulting from adult labor in the glass industry would not be serious.

CHAPTER VII.

ILLEGAL EMPLOYMENT OF CHILDREN IN THE GLASS INDUSTRY.

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ILLEGAL EMPLOYMENT OF CHILDREN IN THE GLASS INDUSTRY.

As part of the present investigation of woman and child labor in the glass industry, inquiry was made concerning the effectiveness of the state laws relative to the employment of women and children. This inquiry was primarily concerned with children. Each of the States covered by the investigation had laws more or less stringent governing the employment of children, and in some States these laws were narrowly restrictive. With the free employment of women, however, the laws interfered much less frequently and in much less degree. The following presentation of results relates to the subject of illegal employment among children. The facts in regard to women are presented elsewhere (p. 427).

Child-labor laws may be divided into two broad classes: First, those limiting freedom of employment; and, second, those regulating working conditions. Laws of the first class are such as prescribe standards of age, education, etc., which a child must be able to reach, and must reach in a prescribed manner, before its employment is legally permissible. Laws of the second class are such as attempt to safeguard the health and safety of the child, who, having met the legal requirements, is employed as an actual worker. The former may be termed employment laws, the latter factory laws. The present inquiry is limited to the subject of employment laws.

The inquiry was conducted and the results are presented under three main divisions representing the more important aspects of existing legislation affecting the employment of children. The divisions are (the negative construction being used in each case) as follows:

(1) Employment under legal age.

(2) Employment without affidavits or certificates as prescribed by law.

(3) Employment for a greater number of hours per day or per week than permitted by law or at other hours of the day than permitted by law.

These three types of illegal employment will be considered in order. The first type, that of under-age employment, was a possibility in all the States concerned in the investigation, as each of these States had a minimum age below which the employment of children was illegal. The latter two types, however, employment without certificates and employment beyond specified hours, were illegal in only a few States. Moreover, the inquiry concerning illegal employment was not of the same thoroughness for each of the three listed types; the reasons for this will be given in the course of the discussion.

EMPLOYMENT UNDER LEGAL AGE.

Of the 17 States covered by the glass investigation there were 16 in which children under 16 years of age were found employed in all or some of the establishments visited. In each of these 16 there was in existence at the time of investigation some legislation regarding the age at which children might be legally employed at factory work and in none was the glass industry excepted from the operation of such legislation. As regards the age of employment, these 16 States fall into two general classes, those (11 in number) in which 14 years was the established age below which children could not legally work, and those (5 in number) in which the legal age was 12 years. No exception was recognized by law in any of the 11 States in which 14 years was the legal age; but in 3 of those in which the legal age was 12 years exceptions of more or less significance were acknowledged. The following list classifies into the above two classes the 16 States covered, notes legal exceptions, and cites legal references:

STATES IN WHICH THE LEGAL AGE WAS 14 YEARS.

Massachusetts: 14 years. No exceptions. (Revised laws of 1902, ch. 106, sec. 28, as amended by ch. 267, Acts of 1905.)

New York: 14 years. No exceptions. (Revised Statutes. Third edition, 1901, sec. 70.)

New Jersey: 14 years. No exceptions. (Acts of 1904, sec. 1.)

Pennsylvania: 14 years. No exceptions. (Acts of 1905. Act No. 226, sec. 2.)

Ohio: 14 years. No exceptions. (Bates annotated Statutes. Third edition. Part IV, sec. 6986–6987, amended by act, p. 598, Acts of 1902, and act, p. 321, Acts of 1904.)

Illinois: 14 years. No exceptions. (Acts of 1903, sec. 1.)

Indiana: 14 years. No exceptions. (Annotated Statutes of 1894, Revision of 1901, sec. 7087b.)

Wisconsin: 14 years. Certain exceptions permitted during school vacations, but the glass industry is not included in such exceptions. (Annotated Statutes of 1898, sec. 1728 A, as amended by ch. 523, Acts of 1907, par. 1.)

Missouri: 14 years. No exceptions in cities of more than 10,000 inhabitants. (Revised Statutes of 1899, sec. 2189.) The two glass factories scheduled in Missouri were in cities of over 10,000 inhabitants, and were therefore not subject to any exceptions.

Kansas: 14 years. No exceptions. (Acts of 1905, ch. 278, sec. 1.)

Tennessee: 14 years. No exceptions. (Acts of 1893, ch. 159, sec. 1, as amended by ch. 34, Acts of 1901.)

STATES IN WHICH THE LEGAL AGE WAS 12 YEARS.

Maryland: 12 years. Exceptions. In the counties (i. e., outside of Baltimore) from June 1 to October 15. (Code of Public General Laws, 1903, art. 77, sec. 160.)

Virginia: 12 years. No exceptions. (Code 1904, sec. 3657 *bb*.)

West Virginia: 12 years. Exception. In case employment does not interfere with regular school attendance. (Code, edition of 1899, ch. 66, as amended by ch. 75, Acts of 1905, sec. 1.)

South Carolina: 12 years. No exceptions applicable to the glass industry. (Act of 1903. Act No. 74, sec. 1.)

Georgia: 12 years. Exceptions. Orphans without other means of support, child of widow, child of aged or disabled father. (Acts of 1906. Act No. 399, sec. 2.)

The investigation developed no cases of employment under legal age in 7 States. These are Illinois, Kansas, Massachusetts, New York, and Wisconsin (States in which the legal age was 14 years), and Georgia and South Carolina (in which the legal age was 12 years). In each of the remaining 9 States there was at least one scheduled establishment in which some of the children employed were below the age established by the law of the State as the minimum age of working, and who, if legal exceptions existed, did not fall within the scope of such exceptions.

The following table shows for each of these 9 States the number and per cent of establishments investigated found to be employing children under legal age and the number and per cent of investigated children so employed. For the purpose of possible comparison there is also presented the number of establishments scheduled and the number of children investigated in each of the 7 States in which no violations of the age laws are found.

In presenting this and the other tables of this section it should be explained that the data showing the number of children of the different ages are not in exact agreement with corresponding data in the general tables. The reason for this lack of agreement is as follows: The information presented in the general tables shows conditions existing in the establishments visited during what has been termed a "representative week." In the course of the field work, however, a question sometimes arose whether the week selected as representative in other particulars was really representative in the matter of illegal employment, whether, in other words, the visit of the Bureau's agent had not been anticipated and illegally employed children excluded from the factory for the time being. In cases of suspicion, therefore, the investigation of illegal employment was extended to include a longer period than the one week, sometimes by a study of the preceding pay-roll period, sometimes by a return visit to the factory in question. As a result the children included in these tables are not in all cases the same children as those employed during the week selected as representative for the study of wages, hours of labor, working conditions, etc.

NUMBER AND PER CENT OF ESTABLISHMENTS INVESTIGATED EMPLOYING CHILDREN UNDER LEGAL AGE, AND NUMBER AND PER CENT OF CHILDREN SO EMPLOYED, BY STATES.

State.	Legal age.	Number of establishments investigated employing children.		Per cent of establishments employing children under legal age.	Number of children investigated in scheduled establishments.		Per cent of children investigated who were under legal age.
		Under 16.	Under legal age.		Under 16.	Under legal age.	
In which violations were found:							
New Jersey	14	16	7	43.8	423	14	3.3
Pennsylvania	14	54	23	42.6	1,732	95	5.5
Ohio	14	20	5	25.0	427	7	1.6
Indiana	14	21	5	23.8	431	25	5.8
Tennessee and Missouri	14	3	2	66.7	53	4	7.5
West Virginia	12	18	6	33.3	479	14	2.9
Maryland	12	4	1	25.0	124	2	1.6
Virginia	12	5	3	60.0	72	6	8.3
In which no violations were found:							
Massachusetts	14	2	....	....	28	....	....
New York	14	12	....	....	90	....	....
Illinois	14	7	....	....	268	....	....
Kansas and Wisconsin	14	4	....	....	56	....	....
Georgia and South Carolina	12	2	....	....	29	....	....

The information of this table is supplemented by another table, which shows, for each State in which children were found to be employed under legal age, the exact ages of those so employed.

EXACT AGES OF CHILDREN EMPLOYED UNDER LEGAL AGE, BY STATES.

State.	Legal age.	Number of children employed under legal age.	Distribution by exact age (in years) of children under legal age.					
			9.	10.	11.	12.	13.	Not reported.
New Jersey	14	14	....	....	1	2	11	....
Pennsylvania	14	95	....	4	5	13	73	....
Ohio	14	7	....	....	....	1	6	....
Indiana	14	25	....	....	4	6	11	4
Tennessee and Missouri	14	4	....	....	....	1	3	....
West Virginia	12	14	1	5	8	....	....	....
Maryland	12	2	1	1	....	....	....	....
Virginia	12	6	....	4	2	....	....	....

EMPLOYMENT OF CHILDREN WITHOUT PROPER CERTIFICATES OR AFFIDAVITS.

The requirement that an employer of child labor shall obtain and keep on file a certificate or affidavit of age for each child employed is the logical supplement to a law establishing a legal age of employment. By the absence of such a requirement the enforcement of the age law is rendered uncertain and much more difficult. Most of the States concerned in the glass investigation had recognized this condition and had met it with compulsory-affidavit requirements. There were, however, 6 States in which an affidavit requirement was entirely absent or was applicable in special cases only. These States were South Carolina (legal age, 12 years), Virginia (12), Georgia (12), West Virginia (12), Tennessee (14), and New Jersey (14). The first

5 of these States provided for employment certificates in a few special cases; the New Jersey law permitted an employer to use age affidavits for his own protection, but did not make their use mandatory.

In each of the remaining 10 States concerned, the use of some sort of employment certificates had been made an integral part of the law establishing a minimum age for children's working. In 7 of these 10 States inquiry was made concerning the effectiveness of the laws relating to such certificates. These States were Illinois, Indiana, Missouri, New York, Ohio, Pennsylvania, and Wisconsin. A supplementary study, moreover, was made of the situation in New Jersey. The law of that State did not make the use of certificates mandatory; but a study of its effect is of interest, particularly in view of New Jersey's importance as a glass-manufacturing State. The 3 States omitted from the inquiry—Kansas, Maryland, and Massachusetts—were omitted for no other reasons than those of limited time and resources. New Jersey, because of the exceptional character of its certificate law, will be considered separately on a later page.

The situation as it was found to exist in the 7 States which provided specific certificate laws may now be considered. In each of these 7 States the legal age of employment was 14 years, with no exceptions applicable to the glass industry at least. In each of them the employment of a child under 16 years of age was in itself declared to be illegal unless the employer obtained and kept on file a certificate or affidavit of the child's age, such certificate or affidavit to be obtained and kept in accordance with certain legal prescriptions. Several of the States, moreover, required that the certificate could not be issued unless the child concerned was able to fulfill certain other conditions, such as those of literacy, school attendance, and physical development.

The following list exhibits in briefed form the legal requirements of these States regarding the obtaining and filing of certificates or affidavits and the proper legal reference in each case. It is to be repeated that in each of these States the legal age of employment was 14, and in none were there any legal exceptions applicable to the glass industry. The laws referred to are in each case the ones which were in force at the time of the investigation.

New York: Illegally employed if under 16 and without employment certificate, which shall not be issued unless issuer is convinced that child is 14 years of age, can read and write simple English, has reached normal development for its age, and is physically able to perform the work which it intends to do. (Revised Statutes, third edition, 1901, sec. 70, as amended by ch. 184, Acts of 1903, and sec. 71, as amended by ch. 184, Acts of 1903, and ch. 493, Acts of 1905.)

Pennsylvania: Illegally employed if under 16 and an age and school certificate is not on file. The certificate must state the ability of the child to read and write simple sentences in the English language. (Acts of 1905, act No. 226, secs. 5 and 6.)

Ohio: Illegally employed if under 16 and an age and schooling certificate is not kept on file. In case of doubt as to physical fitness a certificate from the board of health shall be required before age and schooling certificate shall be issued. (Bates Annotated Statutes, third edition, Part IV, secs. 6986-7, as amended by act, p. 598, Acts of 1902, and act, p. 321, Acts of 1904.)

Illinois: Illegally employed if under 16 years and an age and school certificate is not on file at the place of employment. Illegally employed if under 16 and unable to read and write, unless attending night school. (Acts of 1903, sec. 4.)

Indiana: Illegally employed if under 16 years without an age affidavit on file in the office of the employer and, except during vacation of the public schools, when unable to read and write simple English. Factory inspector may require a certificate of physical fitness when he thinks desirable. (Annotated Statutes of 1894, Revision of 1901, sec. 7087*b*.)

Missouri: Illegally employed if under 16 unless an age affidavit is on file. Factory inspector may further demand a certificate of physical fitness be obtained when he thinks it advisable. (Acts of 1907, p. 86, sec. 5.)

Wisconsin: Illegally employed if under 16 years without an employment certificate, and no permit shall be granted to child unable to read and write simple sentences either in the English language or in the language of the child's native country. Certificates may be refused to children who may seem to be physically unfit to perform the labor at which they may be employed. (Annotated Statutes, 1898, sec. 1728, as amended by ch. 523, Acts of 1907.)

This synopsis shows one point of similarity in the laws of all 7 States—the declaration that an employer of child labor is acting in violation of the law when he has not obtained and does not have on file for every employed child of legal age, but under 16 years of age, an employment permit in the form of an affidavit or certificate affirming the child's age. Moreover, in all of these States except Indiana and Missouri it is provided that certain literary or schooling tests shall have been complied with before a permit can legally issue. In Indiana literacy qualification was a preliminary to employment, but did not seem to be a necessary requirement for a certificate's issue. In Indiana, Missouri, and Ohio the factory inspectors might prohibit the employment of a child on the ground of physical unfitness, but in only one State, New York, was physical fitness a necessary preliminary to the issue of an employment certificate.

In each of these 7 States an examination was made of the extent to which the law governing certificates was observed in the glass industry. The investigation of this subject, however, did not cover all the establishments scheduled, as exhibited in the preceding presentation of under-age employment. A complete investigation was impossible. The several state laws required that the certificates be kept on file in the office of the establishment concerned and required that these files should be open to the inspection of designated state officials.

Many glass factories, particularly the smaller ones, did not keep their certificates in easily accessible form. Technically they may have been "on file," as required by the law, but practically they were often broadly scattered in many drawers, pigeonholes, books, etc., and their assembling was a matter of time and difficulty. It was not uncommon that an establishment claimed to have more certificates than could be found with the effort it was willing to put into the matter of finding them. Usually it was very probably true that in such cases there were really no more certificates in the office, but this could not always be assumed. Therefore, in presenting the results of the investigation of this subject only those establishments have been considered in which there was absolutely no uncertainty that the certificates offered for inspection constituted the total number on file, using the term "on file" in its broadest possible sense. This method of procedure limits to a minimum the data available for presentation, but it insures accuracy.

The results obtained may be presented briefly in tabular form. The facts to be offered are of two classes. The first concerns the degree in which children may have been employed without certificates or affidavits. The second concerns the degree in which such certificates or affidavits were improperly issued.

EMPLOYMENT OF CHILDREN WITHOUT CERTIFICATES.

The information obtained upon the first of these points, the employment of children without the required certificates, is presented in the following table. This table shows for each State concerned, first, the number of establishments investigated upon the point of certificate filing and the number and percentage of such establishments employing children without certificates, and, second, the number of children investigated in the establishments concerned and the number and percentage of such children working without certificates on file.

NUMBER AND PER CENT OF ESTABLISHMENTS EMPLOYING CHILDREN WITHOUT CERTIFICATES, AND NUMBER AND PER CENT OF CHILDREN SO EMPLOYED, BY STATES.

State.	Establishments.			Children at work.		
	Total number investigated.	Employing children without certificates.		Total number investigated.	Working without certificates.	
		Number.	Per cent.		Number.	Per cent.
New York	4	3	75.0	29	17	58.6
Pennsylvania	28	27	96.4	983	577	58.7
Ohio	8	7	87.5	150	112	74.7
Indiana	3	3	100.0	96	32	33.3
Illinois	3	3	100.0	140	22	15.7
Missouri and Wisconsin	2	2	100.0	79	18	22.8

Deductions from the percentage figures of this table must, of course, be made with care. For certain of the States the number of establishments and, even in greater degree, the number of children investigated were small. Moreover, while there was no conscious choice in the selection of establishments investigated upon this point, it is possible that the results in certain instances, because of the limited number of cases investigated, may not be representative. On the whole, however, there is no evident reason why the results should not be fairly representative of the conditions existing at the time, and, in any case, the exhibit of the table is highly significant. It indicates a very marked disregard of the certificate laws in all the States concerned. In 3 States all the establishments investigated were violating the law in some degree, and in the State having the most favorable showing, New York, only one out of four factories had certificates on file for all the children employed. That this high percentage of legal violation on the part of the several establishments was not due to the chance absence of a small number of certificates in each offending establishment is shown in the second section of the table, which presents the number and percentage of children investigated who were found to be working without certificates. The State with the most favorable showing upon this point is Illinois, and here somewhat more than 15 per cent of the children were working in violation of the law, and in Ohio and Pennsylvania, where the numbers concerned are sufficiently large to be accurately representative the percentages of violations are respectively 74.7 and 58.7.

New Jersey was excepted from the above presentation of certificate information, because of the fact that while in New Jersey there was a law in force relating to the issue of certificates, the use of certificates had not been made mandatory upon employers. The only law of New Jersey upon the subject of certificates existing at the time of the investigation reads as follows:

ACT OF 1904.

CHAPTER 64.

SECTION 1. No child under the age of fourteen years shall be employed, allowed or permitted to work in any factory, workshop, mill, or place where the manufacture of goods of any kind is carried on;

SEC. 3. If at the time of the employment of a child the proofs of age specified in Subdivisions I and II of this section are filed with the corporation, firm, or person employing the child, such proofs shall be conclusive evidence of the age of child in a suit against such employer for a violation of section 1: *Provided, however*, That correct copies of all papers, certificates, passports, and affidavits relating to such employment shall be mailed, postage prepaid, to the department having charge of the enforcement of this act, at Trenton, New Jersey, within twenty-four hours after the same are filed, together with a statement of the legal name of the person, firm, or corporation employing such child.

[Subdivisions I and II referred to detail the manner in which the certificates shall be issued and ages shall be established.]

SEC. 8. A corporation, firm, or person owning or operating a place coming under the provisions of this act and employing, allowing, or permitting minors under the age of sixteen years to work therein shall keep or cause to be kept in the main office of such place, in the town or city where such place is located, a register in which shall be recorded the names, places of residence, and time of employment of all such minors working under certificates, transcripts, passports, or affidavits; such registers and certificates, transcripts and affidavits shall be produced for inspection upon demand of the commissioner, assistant, or any of the inspectors; truant officers shall have the same right as inspectors to examine such registers and the certificates, transcripts, passports, or affidavits, when authorized in writing so to do by the commissioner; any corporation, firm, or person failing to keep such register or refusing to permit the persons herein authorized to inspect the same or the certificates, transcripts, passports, or affidavits shall be liable to a penalty of fifty dollars for each offense.

This law had not been interpreted by a court at the time of investigation, and in the absence of such judicial decision there existed considerable uncertainty as to its exact meaning. Three points, however, appear evident:

(1) The age of 14 is the minimum age for working.

(2) The observance of the certificate provision of the law is optional with the employer. If he does so he thereby obtains certain legal protection in case of a suit at law. But the fact that he does not obtain certificates does not in itself constitute a legal violation.

(3) The provision of section 8 requiring the keeping of a register of child employees applies only to those for whom certificates have been obtained, a matter which is optional with the employer. The same conclusion would apply to the keeping and exhibiting of such certificates.

From this summary account of the law of New Jersey it appears that the legal requirement regarding certificates in New Jersey was quite different from what it was in the States listed in the preceding table. In those States an employer was required, under penalty, to provide and keep on file for each child employee of legal age but under 16 years a formal certificate affirming the true age of such child. In New Jersey the law provided a method by which the employer might obtain a certificate at the time of a child's employment, which certificate should be conclusive evidence in a suit at law. But the employer was not required to obtain such certificate, and no action lay against him for not obtaining a certificate when employing a child or for not keeping a file of certificates for children employed by him. This interpretation of the law, it may be aded, is the one accepted and followed by the department of the state government charged with the duty of its enforcement.

The certificate law of New Jersey, therefore, was optional, and the fact that in the glass establishments scheduled there may not have been certificates on file could not be accepted as constituting illegal employment. An examination, however, was made in a limited number of establishments to determine, first, in what degree the law was availed of, and, second, if the law was availed of, the degree in which the certificates on file had been legally issued. The result of the examination, as regards the first of these points, may be stated as follows: Three factories were investigated. Of these three, one had obtained and had on file certificates as permitted by law for all children under 16 years of age; and two had certificates on file for a limited number of children. The three establishments employed a total of 163 children under 16 years of age, and for this total there were 70 certificates on file, the remaining 93, or 57.1 per cent, being employed without certificates of any kind.

CERTIFICATES ISSUED BEFORE LEGAL AGE.

The obtaining of a certificate by or for a child under legal age was in itself a legal violation in all the States where a certificate was required as a preliminary to employment. This was also true of New Jersey. In this State a certificate need not be obtained, but if it was obtained by false evidence of any kind a legal violation resulted. In no State did the violation attach to the employer, unless he was a party to the fraud, but on proof of violation the certificate canceled itself.

Examination of the certificates upon this point developed the following results: In five States none of the certificates examined were found to have been issued to children under legal age. These States were New York, Illinois, Indiana, Missouri, and Wisconsin. In the remaining three States—New Jersey, Pennsylvania, and Ohio—it was found that 85 certificates out of a total of 514 had been issued to children under legal age. The distribution of these falsely issued certificates among these States, the exact ages of the children concerned at the time of the issue of said certificates, and the number of establishments affected is shown in the following table. For purposes of comparison the number of establishments and the number of certificates examined in the States where no such falsely issued certificates were found are also given.

ESTABLISHMENTS EMPLOYING CHILDREN WITH CERTIFICATES ISSUED BEFORE LEGAL AGE AND NUMBER AND PER CENT OF SUCH CERTIFICATES ISSUED, BY STATES.

State.	Establishments.			Certificates.			Children of specified ages working with certificates issued before legal age.			
	Total number investigated.	Employing children with certificates issued before legal age.		Total number examined.	Issued before legal age.		10 years.	11 years.	12 years.	13 years.
		Number.	Per cent.		Number.	Per cent.				
States in which falsely issued certificates were found:										
New Jersey	3	2	66.7	70	18	25.7	......	1	3	14
Pennsylvania	28	12	42.9	406	66	16.3	1	6	7	52
Ohio	8	1	12.5	38	1	2.6	......	......	......	1
States in which no falsely issued certificates were found:										
New York	4	......	......	12	......	......	......	......	......	......
Indiana	3	......	......	64	......	......	......	......	......	......
Illinois	3	......	......	118	......	......	......	......	......	......
Missouri and Wisconsin	2	......	......	61	......	......	......	......	......	......

The fact, as just shown, that in every State in which investigation was made a percentage of the children were employed without the legally prescribed certificates does not necessarily imply that all such children were unable to comply with the requirements of the law. As a matter of fact, in a large number of instances the lack of certificates was due to carelessness, ignorance, or lack of inspection. This point could not be developed with certainty in those cases where educational and physical tests were required, for the final determination of what constituted compliance in such cases necessarily lay with the issuing authority and could not be made positively by anyone else. As regards the qualification of age, however, the one of decidedly the first significance in all of the States concerned, determination was easily possible, and upon this point examination was made. The results are exhibited in the following table. This table shows, by States, the total number of children employed without certificates, the number of such children who were of legal age, and on this point at least were entitled to certificates, and the complementary number of children who were not of legal age, and who, therefore, in any case could not have obtained certificates legally.

CHILDREN UNDER 16 EMPLOYED WITHOUT CERTIFICATES, NUMBER OF LEGAL AGE, AND NUMBER AND PER CENT UNDER LEGAL AGE, BY STATES.

	Children under 16 employed without certificates.			
	Total number investigated.	Number of legal age.	Number under legal age.	Per cent under legal age.
New York	17	17		
New Jersey	93	84	9	9.7
Pennsylvania	577	536	41	7.1
Ohio	112	109	3	2.7
Indiana	32	32		
Illinois	22	22		
Missouri and Wisconsin	18	18		

EMPLOYMENT OF CHILDREN IN EXCESS OF LEGAL HOURS.

In the same 8 States in which the observance of the certificate laws was investigated, further investigation was made regarding the degree in which the laws limiting the hours of children's labor were observed. These States were, to repeat, New York, New Jersey, Pennsylvania, Ohio, Illinois, Indiana, Missouri, and Wisconsin. Each of these States had enacted a law or laws fixing a maximum working day and a maximum working week for children under 16 years of age. Several of these States, moreover, had legislated against children working at night, by establishing precise hours of labor; that is to say, by rendering it illegal to employ children at labor between specified hours in the afternoon or evening and specified hours in the morning.

In their character and in their stringency the several laws referred to exhibited marked variations. A brief summary of their essential requirements upon the three points of (1) maximum day, (2) maximum week, and (3) prohibition of night work is presented in the following list:

Illinois: Legal day, 8 hours; legal week, 48 hours. No exceptions. Illegal to work before 7 a. m. or after 7 p. m. (Acts of 1903, p. 187, sec. 10.)

Indiana: Legal day, 10 hours; legal week, 60 hours. No exception to the 60-hour week, but 10-hour day may be increased for the sole purpose of making a shorter day on the last day of the week. (Annotated Statutes of 1894, revision of 1901, sec. 7087a.)

Missouri: Legal day, 9 hours; legal week, 54 hours. No exceptions. Illegal to work before 7 a. m. or after 7 p. m. [This act applies only to cities of over 10,000 inhabitants. The glass factories scheduled in Missouri were in cities of over 10,000 inhabitants, and thus came within the above provision.] (Acts of 1907, p. 86, sec. 2.)

New Jersey: Legal day, 10 hours; legal week, 55 hours. No exceptions. Night work in the glass industry permitted.

The law of New Jersey upon the subject of legal hours was in some dispute. The Statutes of 1895, sections 66 and 67, provide for a 55-hour week for persons under 18 and fixes the precise hours of daily work, provided that glass factories shall be excepted. The law of 1904, section 9, establishes a 10-hour day and a 55-hour week for persons under 16, but makes no reference to women or to the earlier law or to the glass industry. At the time of the investigation these laws had not been passed upon judicially. Under the interpretation of the inspection department of the State the later law is construed to supersede the earlier law, persons of 16 and over being free of any legal limitations on hours, but the exception made in the case of night work in the glass industry is held to remain. The accepted law for the glass industry, therefore, is: 10 hours a day; 55 hours a week; no limitation on night work.

New York: Legal day, 8 hours; legal week, 48 hours. No exception. Illegal to work before 8 o'clock in the morning or after 5 o'clock in the evening. (Revised Statutes, Third edition, 1901, sec. 77 (as amended by ch. 507, Acts of 1907), Subdivision I.)

Ohio: Legal day, 10 hours; legal week, 55 hours. No exceptions. Illegal to work before 6 a. m. or after 7 p. m. (Bates' Annotated Statutes, Third edition, Part IV Penal, sec. 6986–6988 (as amended by act, p. 598, Acts of 1902, and act, p. 321, Acts of 1904).)

Pennsylvania: Legal day, 12 hours; legal week, 60 hours. No exceptions. Night work is allowed in the glass industry by special exception. Night work is defined as beginning at 9 p. m. and extending until 6 a. m., a period of 9 hours. The law further stipulates that a child working partly before 9 p. m. and partly after 9 p. m. shall not work more than 9 hours. (Acts of 1905, act no. 226.)

Wisconsin: Legal day, 10 hours; legal week, 55 hours; legal week, 6 days. No exceptions. Illegal to work before 7 a. m. or after 6 p. m.

Examination of this summary shows that the working time of children was most restricted in New York and least restricted in Pennsylvania. In New York not only was the legal day 8 hours and the legal week 48 hours, but by prohibiting work for such persons between 5 p. m. and 8 a. m. the period permitted for children's working was made precise and rigid. In Illinois the situation was the same as regards the 8-hour day and 48-hour week, but the working time permitted was longer, extending from 7 a. m. to 7 p. m. At the other extreme, Pennsylvania allowed a 60-hour week and a 12-hour day, and permitted 9 hours night work by children in the glass industry. Indiana was the only State having no legislation upon night work, but in New Jersey and Pennsylvania the glass industry was excepted from the law prohibiting children working at night. In every case the length of the legal week was specifically fixed, subject to no exceptions. This was true also of the legal day except in Indiana, where it was permitted that the day's work of children might be increased from 10 to 12 hours for the purpose of making a shorter work day on the last day of the week.

In the attempt to ascertain the degree in which these several laws were observed in the glass industry, personal inquiry was made among the families of 1,896 children, representing 74 establishments. The information obtained in this manner was supplemented as far as possible at the establishment concerned by examination of pay rolls, etc. The object was to ascertain the number of establishments which had violated, during the preceding year, the laws regulating the hours of labor of children, and the number of children who during the same year had worked in violation of such laws.

The following table shows, by States, first, the number and percentage of investigated factories found to have employed some of their child workers in excess of the maximum legal day or maximum legal week during the year preceding the time of scheduling; and, second, the number and percentage of children so employed. Two explanatory notes are necessary. In the first place it will be observed that the legal violations presented are for establishments and individuals as units; no attempt is made to show the number of occasions on which the law was violated by the same establishment or by the same individual. In the second place it is to be noted that the two sets of entries showing violations of the laws establishing a legal day and those establishing a legal week are not necessarily exclusive. Under the New York law, for instance, to exceed the legal week of 48 hours implies a necessary exceeding of the legal day of 8 hours. In such cases as these the establishment or child concerned has been entered in the table as violating the law upon two separate points.

NUMBER AND PER CENT OF ESTABLISHMENTS EMPLOYING CHILDREN MORE THAN LEGAL DAY OR WEEK AND NUMBER AND PER CENT OF CHILDREN SO EMPLOYED, BY STATES.

State.	Legal hours per day for children.	Legal hours per week for children.	Establishments.					Children.				
			Total number investigated.	Employing children more than—				Total number investigated.	Employed more than—			
				Legal day.		Legal week.			Legal day.		Legal week.	
				Number.	Per cent.	Number.	Per cent.		Number.	Per cent.	Number.	Per cent.
New York	8	48	7	3	42.9	3	42.9	91	15	16.5	15	16.5
New Jersey	10	55	8	6	75.0	6	75.0	203	36	17.7	36	17.7
Pennsylvania	12	60	36	10	27.8	8	22.2	1,108	13	1.2	12	1.1
Ohio	10	55	9	4	44.4	2	22.2	201	5	2.5	44	21.9
Indiana	[a]10	60	7	......	......	......	......	123	......	......	......	......
Illinois	8	48	4	4	100.0	4	100.0	113	20	17.7	20	17.7
Wisconsin	10	55	1	......	......	......	......	44	......	......	......	......
Missouri	9	54	2	......	......	......	......	13	......	......	......	......

[a] May be increased to 12 hours for the purpose of making a shorter workday on Saturday.

The next table supplements the preceding. It exhibits in precisely similar form the extent to which the laws prohibiting night work for children were observed. Such laws existed in only 5 of the 8 States now being considered. Indiana had no law at all upon the subject, and Pennsylvania and New Jersey, while prohibiting night work for children in other industries, made special exception in the case of the glass industry.

NUMBER AND PER CENT OF ESTABLISHMENTS EMPLOYING CHILDREN BEFORE OR AFTER LEGAL HOURS AND NUMBER AND PER CENT OF CHILDREN SO EMPLOYED, BY STATES.

State.	Employment of children prohibited between specified hours.	Total establishments investigated.	Establishments employing children before or after legal hours.		Total children investigated.	Children employed before or after legal hours.	
			Number.	Per cent.		Number.	Per cent.
New York	5 p. m. to 8 a. m.	7	1	14.3	91	2	2.2
Ohio	7 p. m. to 6 a. m.	9	7	77.8	201	94	46.8
Illinois	7 p. m. to 7 a. m.	4	1	25.0	113	13	11.5
Wisconsin	6 p. m. to 7 a. m.	1	....	....	44	....	....
Missouri	7 p. m. to 7 a. m.	2	1	50.0	13	4	30.8

The employment of children for longer periods per day or per week or for other periods during the day than those provided by law is the one form of illegal employment which must be considered as having specific relation to the glass industry. The employment of children under legal age or the employment of children of legal age without having certificates on file are not peculiar to the glass industry. But the illegality which arises from employing children in excess of, or at other than, legal hours is intimately related to the character of the industry, to its customs and methods of operation.

The great majority of the children in the glass factories, approximately 90 per cent, are employed in the department known as the "furnace room," where the glass is melted and molded. As is elsewhere pointed out in detail, the operating systems of the several furnace rooms are closely similar, being governed by the influence of custom and the influence of the glass blowers' unions. As a result of these two sets of influences more than 90 per cent of all furnace rooms restrict their working hours to not more than 50¼ per week and not more than 9 per day. Thus in only two States, New York and Illinois, is the normal working day and week for most glass factories as long as the legal day and week permitted to children. As the glass blowers observe their working hours strictly, never engaging in overtime work, and as the shopboys begin work and quit work with the blowers, there is practically no opportunity in any State, other than the two mentioned, for a shopboy to exceed the legal hours of labor, except by working on two separate shifts. In a furnace room operating two shifts of employees, the possibility of a boy working this special form of overtime is always present, but in a furnace room working only in the day time, the possibility is lacking. It may be assumed, therefore, that, except in Illinois and New York, all working of shopboys beyond the legal hours arises from the fact of night work. In other words, it is the prohibition of night work rather than the establishment of a simple maximum day or week, which is the most effective restraint on overtime work in the glass industry, whether or not such overtime be illegal.

This fact is evidenced by a study of the situation in Illinois and New York. In these States the legal day for children is 8 hours, whereas the customary working hours of all but a few furnace rooms are rarely less than 8½ hours. To adapt themselves to the child-labor law a few factories in New York and Illinois have lowered the working hours for their furnace departments. But these are an exceptional few. The great majority of the establishments in these two States continue to follow the general trades customs, which mean a normal day for the furnace-room force of not less than 8½ hours. Legally, therefore, a factory in such a position is placed in a difficult position. To continue to employ boys under 16 years of age means to have two sets of working hours, one for boys under 16 years of age and one for the other employees. As the shopboys perform exactly the same work whatever their age, it is evident that, if children are employed, a constant temptation exists for the employer and for the child to violate the law, and as the difference between the legal hours and the normal hours is so slight the temptation can often be yielded to with comparative little chance of detection. The investigation of this situation in the factories of the two States concerned developed that, on the whole, the law was observed with considerable strictness so far as concerns regular and continued violations, but occasional violations are undoubtedly frequent.

The matter of night work, in the sense of work on a night shift, while almost unknown in the finishing department, is in the furnace room, where the vast majority of children are employed, an established institution of the industry. It is to be noted, moreover, as an important factor, that the night shift of the furnace room is, under normal circumstances, never a permanent night shift. Weekly alternation of shifts is a traditional custom of the industry. The glass blowers always alternate, and the shopboys have been accustomed to follow their shop in its alternations. Thus, when the law interferes by prohibiting the working of children at night, one of three things must result, if the factory is one of the great majority which operates at night and if the law is to be respected: (1) No boys under the prohibited age are employed; or (2) such boys are placed in special shops which work only by day, the alternating shops being composed solely of boys above the prohibited age; or (3) the alternation of the shopboys ceases, the night shift and the day shift becoming permanent institutions with the younger boys all on the day shift. The third of these alternatives is the only one that need be emphasized. The strict following of this alternative insures that no boys under the prohibited age shall work at night, but it also insures that boys who are just above or who have just reached the age at which night work is permitted them shall be employed steadily on the night shift, with none of the relief which comes from alternation. New York attempts to meet this situation by providing that no person under 18 shall be employed at night.

It may be concluded, therefore, that, as long as night work is an established feature of the furnace room of a glass factory, the prohibition of night work for children tends toward the gradual elimination of child labor. It is the experience of most factories affected by laws prohibiting night work for children that, if the factory is to operate at night and the law is to be respected, child labor becomes uneconomical.

CAUSES AND EFFECTS OF ILLEGAL EMPLOYMENT OF BOYS IN THE GLASS INDUSTRY.

The temptation to violate child-labor laws, and the opportunity for violating them, are perhaps greater in the glass industry than in any other. The temptation lies in the fact that the absence of one boy may prevent an entire "shop" from working for a "turn" or even for a day. The output of a "shop," i. e., three skilled blowers and four boys, is lost to the management, and in addition the ton or so of molten glass (in case of a pot furnace) is, if not lost, at least rendered much less valuable, especially if it must be held molten until the next day. In such a situation the blowers and the boys who do appear for work are as much concerned as is the manager to secure the necessary additional boy. The economic incentive to accept any one who can be obtained, whatever his age, is almost irresistible. In one establishment the firm had made a rule that, if any fines were assessed by factory inspectors for illegal employment of children, the amount of such fines should be deducted from the manager's personal salary. It was supposed this would enlist the manager on the side of the enforcement of the law. As a matter of fact, it did not. This manager knew that in the last analysis his salary was based upon the output he was able to deliver to the firm, his ability to "get out the goods," and felt that he could better afford to take the chances of being caught by a factory inspector, and paying the fine if caught, than to lose the production that would result from inability to fill out the complement of a "shop" when some of the regular boys failed to appear for work.

The temptation to violate the law under the circumstances mentioned is evident. The opportunity to do so is also evident. Illegal employment of the kind mentioned is but for a day or a night. The chances of detection are exceedingly remote. The factory inspector comes but once or twice a year and almost never at night. The names of the occasional boy employees are rarely put on the pay roll. Usually they are paid in cash, which is not even put in an envelope, and by some employers at least the amounts so paid are not even entered as a part of "labor cost," but are charged as "incidentals." Such boys might not be employed once a week in a given factory, and the same boy might not be employed more than a few times. True there is a tendency among boys who have been so employed a few times to seek such employment and thus increase the opportunity for it, but, after all, the total amount of it is not great, and where the employers, the blowers, the parents, and the boys so employed are all anxious to conceal the facts, it is absurd to suppose that any state factory inspection department, as at present equipped, would be able regularly to detect, much less prevent, this fitful illegal employment of boys in emergency cases, at all times. Neither is it to be supposed that an investigation such as this one could bring out more than a general survey of these illicit facts. As to the normal and steady conditions of the glass house, the investigation could and did get real data. Upon fitful and illicit conditions it got fitful and uncertain glimpses here and there.

In Indiana where the normal conditions are by no means the worst, where factory inspection is sincere and as adequate as the equipment of the department permits, school-teachers were able to point out the boys attending school regularly in the daytime who worked in the glass factories nights occasionally. The boys so pointed out admitted the facts. The occasional dull days were as the teacher suspected days after nights of work. Schoolboys under age going to school and working Friday nights and Saturday forenoons in the glass factories were found in nearly all the States. Illegal employment of boys just before Christmas was admitted and defended by parents and factory managers.

Extremely few glass factories are guiltless of the occasional employment of boys under legal age. In any given community, however, the amount of it is rarely great, and for the industry as a whole is very small. It would appear that the total profit which the manufacturer derives from the practice is very much less than the harm which it does the industry in the eyes of legislators and the public.

The same may be said regarding other practices of many glass manufacturers. There may be only one boy under age in the factory to hide in a box when the inspector comes, but the blowing of the whistle, while agents of this Bureau or state factory inspectors are held in the offices upon formalities creates a suspicion that fires the imagination to the point of filling all the boxes, the tops of leers, and lumber yards with puny childhood. To have arrangements with railroad station agents to telephone the glass factory whenever a state factory inspector gets off a train at his station is a fact which looks worse on its face than any conditions likely to be found in the factory of the manager who had the arrangement.

Carelessness in filling out certificates is not in most cases due in any degree to evil intention on the part of the manager of the glass factory. Nevertheless, to have in his possession carelessly filled certificates, upon which he is relying for his justification for the employment of small boys, is an indication of a lack of watchfulness. Certificates were found which were untrue on their face; i. e., the parent would begin by stating that the boy was 14 years of age, and was born on a given date, detailing the month, day, and year. This date, taken in connection with the date of the affidavit or certificate, would show at a glance that the boy either was not 14 or was not born on the date named. Defective certificates—anything which gives a showing of protection from prosecution for the employer—are too often accepted and shown in defense of employment of children of questionable age, when very often these children are of legal age and could furnish valid certificates, as has been shown in a preceding section of this report, if there had been proper care in the preparation of the certificates. In other words, many illegal certificates are for boys who could have furnished legal ones.

Again, many inconsistent certificates are simply the result of carelessness. In one place it was found that the two glass factories in the town send to an adjoining city and secure the services of a notary public, drive him from house to house in a carriage, filling out certificates for all boys of working age just before the beginning of a "fire," or just when school is out, where the school year ends before the end of a "fire." The notary is paid by the firm, the certificates being furnished free to the family which it is supposed will send their boys to the firm that pays the notarial fee. In this scurrying to place certificates inaccuracies in their contents are common. The certificate, originally intended as a protection to society and childhood against the employment of children too young to legally work, has become simply a protection against prosecution, safeguarding employers who illegally furnish employment to children. "We have their certificate, that protects us," was the response of employers everywhere to the suggestion that some children seemed too small to be of legal working age.

In one establishment in Indiana, where the bookkeeper is a notary public and where practically all certificates were attested by him, the agent of this Bureau found on first visit a number of boys working without certificates. In fact the certificates were comparatively few. Next day all had certificates, new, clean ones, made out before the bookkeeper notary. In West Virginia, where the law provides that its enforcement shall be in the hands of the prosecuting attorneys for the various counties, it was found in one case the prosecuting attorney of the county was the manager of the glass works.

The efforts of glass manufacturers at state capitals to prevent child-labor legislation has also given rise to exaggerated opinions both of the extent and necessity of child-labor in glass factories as they are operated today. As one manufacturer said, "The money I have spent to help prevent the passage of child-labor laws is more than double the difference between boy labor and man labor in my factory, and I am done with it."

CHAPTER VIII.

OPPORTUNITY OF FURNACE-ROOM BOYS TO LEARN THE TRADE.

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Whatever industrial training a shopboy may receive is useful to him in the glass industry only, and within the industry it prepares for practically only one position—that of blower (including under the term blower, pressers and gatherers on machines). There is an almost entire absence in the furnace room of intermediate positions between the simple, unskilled work of the boy and the highly skilled work of blowing. The latter position is attained by way of apprenticeship, and apprentices are not always drawn from the shopboys of the particular factory. If a boy becomes an apprentice, he is assured of ultimate journeymanship; if he fails to become an apprentice, and his chance practically disappears after he is 18, or at most 19, years of age, he remains in the industry as a shopboy to the end. For the young shopboy, therefore, his opportunity of becoming an apprentice before he is too old is a matter of utmost importance.

The great majority of furnace rooms are operated under agreements between the employers on the one hand and the organized blowers on the other. These agreements, together with the regulations of the union, cover the vital points of piece rates and hours of labor, and also include in their scope the general subject of apprenticeship. In these factories the number of apprentices to be taken on each year is fixed, therefore, by specific rules. In nonunion factories there is no such limitation, but as such factories are in a decided minority the present discussion may disregard them.

There are two organizations of blowers in the industry. Each of these makes its own agreements relative to apprentices, and one permits separate agreements for each of its several departments. The character of these various agreements may be briefly reviewed.

The American Flint Glass Workers' Union is the union referred to as permitting its several subordinate departments to agree separately upon working rules, including apprentice regulations. In the pressed ware department the agreement for the year ending June 30, 1908, provides:

> Rule 4. Each manufacturer shall be entitled to employ in pressing two (2) apprentices to each ten (10) pots in operation in gathering or foot-setting, who shall work twelve (12) months at 10 per cent less than list wages.
>
> Rule 5. One apprentice shall be allowed to each fifteen (15) journeymen employed at continuous tanks.

In the division which makes machine jars and bottles the agreement provides as follows:

SEC. 10. One apprentice shall be allowed each year, beginning September 1, to every fifteen (15) journeymen employed, or majority fraction thereof.

SEC. 11. No one shall be considered an apprentice unless they are given a regular place to gather.

SEC. 12. Apprentices shall be required to gather three (3) years as an apprentice to the firm at 10 per cent less than the journeymen gatherers' wages, and said 10 per cent to be the property of the firm. If the firm shall have occasion to discharge an apprentice for a cause justifiable to the manager or factory committee, or should he be removed by death, or withdraw from the trade during the first year of his apprenticeship, the firm shall have the privilege of another apprentice in his stead to serve the unexpired time. No apprentice shall be allowed to work for any other firm only after the expiration of his apprenticeship.

SEC. 13. An apprentice having served three (3) years as an apprentice to the firm must then become a member of the association; he is then considered or recognized as a journeyman gatherer.

In the stem ware department the following agreement obtains:

There shall be an apprentice shop on offhand pulled out stem ware, said apprentice shop to work at 25 per cent less than list for the first six (6) months; for the second six (6) months, 10 per cent less than list. Blower and foot-setter to be considered the apprentices; the gatherer to receive the full list. One apprentice shop to be permitted in every factory. It is understood that the apprentices for such shops shall be taken from the gatherers.

The rules or regulations which obtain in the division for pressing and gathering jar lids and white liners are as follows:

SEC. 9. One apprentice shall be allowed every two (2) years to every twenty-five (25) journeymen employed, or majority fraction thereof.

SEC. 10. No one shall be considered an apprentice unless they are given a regular place to gather.

SEC. 11. Apprentices shall be required to gather two (2) years as an apprentice to the firm at 10 per cent less than the journeymen gatherers' wages, said 10 per cent to be the property of the firm. For each day lost on his own account a corresponding time shall be added to his apprenticeship.

SEC. 12. An apprentice having served two (2) years as an apprentice to the firm must then become a member of the association. He is then considered and recognized as a journeyman gatherer.

In other departments controlled by this union no apprenticeship agreements or regulations are found. Sometimes this means that the question is left entirely in the hands of the manufacturer. In the case of the lamp-chimney department, however, there is no direct apprenticeship regulation. Ostensibly the manufacturer is permitted to employ as many apprentices as he sees fit, but the union regulation is to the effect that lamp chimneys accepted, packed, and sold must pay the full scale price to somebody. The effect of this regulation is to deprive the manufacturer of any pecuniary benefit from the work of the apprentices, and this in turn results in there being few, if any, such persons in shops of this character.

The other union referred to, the Glass Bottle Blowers' Association, differs from the preceding in that its working regulations are drawn by the union as a whole, and not by separate departments. As regards entrance to the trade, these regulations require a five-year term of apprenticeship, the ratio of apprentices to journeymen being adjusted annually as part of the trade agreement between the manufacturers' association and the national union. During the year of the investigation the ratio was 1 to 20. In the agreement for 1909–10 it is specifically stated that no apprentices shall be taken on during the year. This is an unusual regulation, brought about on this occasion by the presence of a large number of idle blowers, who were made idle by the increasing use of the automatic machine.

From this brief review it will be seen that, excluding the exceptional condition in the bottle blowers' union at present, apprentices are taken on each year in the ratio of 1 apprentice to from 10 to 25 journeymen. As the number of shopboys in the usual furnace room is normally at least one-fifth greater than the number of journeymen blowers, it would thus appear that the usual shopboy has about 1 chance in from 12 to 30 of being apprenticed each year. Furthermore, as the opportunity of being apprenticed practically ceases at the age of 18, and as in most of the States concerned a boy can not legally work before he is 14, his ultimate chance of becoming an apprentice is about 1 in from 3 to 7. In other words, it would appear that if all shopboys began work at the age of 14, 1 out of each 3, 4, 5, or 6, depending on the specific regulation or agreement, would become apprentices. Those failing to become apprenticed would, as noted, have practically no hope of after promotion in the industry.

From the nature of the situation it would also appear that the later in life the boy enters upon the work of shopboy the less his opportunity of promotion, because, as has been noted, after the age of 18 he is not likely to be chosen as an apprentice, and also because before he is so chosen it is a custom of the trade, although not a requirement, that he should serve three or four years as a shopboy. This period of preliminary service, however, is by no means necessary nor always observed, numerous instances coming under observation where a boy had entered the furnace room for the first time at the age of 16 or 17 and been made an apprentice within a comparatively few months.

It should be emphasized, however, that the opportunity of a boy's becoming an apprentice is not solely one of numerical chance. It depends also upon the race and color of the boy. There are no rules or regulations favoring the American boy above the foreigner, but it is unquestionably true that, by custom, the American boy is always given the preference. Furthermore, there is an unwritten law of the trade which forbids a Negro boy's becoming an apprentice. Thus in a factory where the number of foreign or Negro boys is large the American white boy who starts in at a boy's occupation and who is steady and attentive and perseveres has an excellent chance of being taken on as an apprentice. The Negro boy has no chance and the foreign boy only a remote one.

Although not directly affecting the opportunity of promotion, the subject of apprentice wages may be referred to here as one of considerable interest and pertinence. When a boy becomes an apprentice to a blower, he receives 50 per cent of the scale price for the perfect ware he produces. It is claimed by several of the officers of the bottle blowers' union that very frequently an apprentice will blow as many bottles at the end of the first year of his apprenticeship as he will ever blow, and that before the apprenticeship is half over he will produce not only as much but as perfect ware as he ever will produce. In other words, it is claimed that for the last half of the apprenticeship term the manufacturer is getting his output at half price in payment for having taught him the trade. To put it in the exact words of one of the national officers:

> Beginning at 14 years of age, working until 18 at "boys' occupations," and starting his apprenticeship then—that is, at 18—working five years as an apprentice, dying at the average age of a glass blower—that is, 41—he has given up one-third of his entire working life and more than one-sixth of his entire earnings to the manufacturer to learn his trade. During his apprenticeship his efficiency is as great averaged over the whole period as any other five years of his life, and during this time he gets only one-half rates for his work. No wonder the glass manufacturer loves the American boy, or any other boy, and wants to teach him a trade. I repeat, apprentices work five years at 50 per cent off the scale, and the manufacturer really gets about $5,000 on each apprentice—that is, each glass blower has paid that amount to learn the work. Is it any wonder that he feels that he has a right to work, a vested right in his occupation?

This is, of course, the radical view, saddened somewhat by a fact earlier referred to, the advent of the automatic machine, which threatens the opportunities of the hand blower. The extent to which the machine is displacing men is somewhat hard to determine with accuracy. During a part of 1908 and 1909 the national union, with approximately 10,000 members, had 3,000 men idle and paid $300,000 in out-of-work benefits from December, 1908, to April 1, 1909. It is claimed that of these 3,000 idle men 1,000 were displaced by the machines.

CHAPTER IX.

CAUSES OF DEATH OF GLASS BLOWERS AND DISEASES OF GLASS WORKERS.

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Inasmuch as the general working environment of the boys in the blow room is essentially the same as that of the blowers, and inasmuch as all boys do blowing from time to time and a considerable number ultimately become blowers, the health conditions of the blowers themselves become important, especially as definite statistics for no other class of glass-factory employees can be shown. As will be seen the prevalence of tuberculosis among the blowers directly and seriously concerns the boys.

CAUSES OF DEATH OF GLASS BLOWERS.

In order to throw as much light as possible on the question of the health conditions of the glass industry, statistics are here presented showing the death records of the Glass Bottle Blowers' Association of the United States and Canada for a period of seventeen years, or from 1892 to 1908, inclusive.

It should be said by way of preface to this data that the Glass Blowers' Association pays a death benefit to the designated beneficiary of each member at death. This department of the organization is conducted like an insurance company, and each claim for the benefit must be accompanied with proofs of the death of the member, etc. One of the requirements of this proof is a certificate from the attending physician showing the cause or circumstances (in case of accident) of the death. This is an important matter to the beneficiary, who must see that the physician carefully files this certificate. It is not a pro forma matter to such physician, who may reasonably be presumed in each case to make out the certificate carefully and accurately. The data here presented is a careful transcript of these certificates. It is believed that these returns are therefore more reliable than returns made pro forma by physicians to municipal boards of health to fulfill the requirements of an impersonal legal regulation.

The total number of deaths was 898; of these the records show the cause of all deaths, and the age at death for 886 persons.

The following table shows the causes of death, by age groups, with percentages of the deaths from the cause stated within each age group. In the last column of the table all deaths from the cause stated appear, together with percentage of deaths from that cause.

CAUSES OF DEATH, BY AGE AT DEATH, FOR GLASS BOTTLE

Cause of death.	Number and per cent of deaths in each specified age group.											
	Under 20 years.		20 to 24 years.		25 to 29 years.		30 to 34 years.		35 to 39 years.		40 to 44 years.	
	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.
Typhoid fever			2	7.41	2	7.41	8	29.63	7	25.92	2	7.41
Other epidemic diseases					3	42.86					1	14.29
Tuberculosis of lungs	1	0.35	23	8.13	63	22.26	56	19.79	55	19.44	38	13.43
Other forms of tuberculosis					1	12.50	4	50.00			3	37.50
Cancer and other malignant tumors.			1	4.35	1	4.35	3	13.04	3	13.04	3	13.04
Alcoholism							1	14.29	3	42.86	1	14.29
Other general diseases			1	6.25	1	6.25	2	12.50	3	18.75	3	18.75
Apoplexy			1	5.00	1	5.00	2	10.00	2	10.00		
Paralysis					1	4.76	1	4.76	4	19.05	2	9.53
Other diseases of nervous system.			2	7.69	2	7.69	4	15.39	5	19.24	2	7.69
Organic heart disease			1	1.21	8	9.64	6	7.23	7	8.43	18	21.69
Other diseases of circulatory system.							1	10.00	1	10.00	2	20.00
Pneumonia			5	7.24	9	13.04	11	15.94	14	20.29	13	18.84
Other diseases of respiratory system.			2	7.14	3	10.72	1	3.57	5	17.86	2	7.14
Gastritis			1	5.55	1	5.55			4	22.22	3	16.67
Cirrhosis of liver					1	9.09	1	9.09	3	27.27	2	18.19
Other diseases of liver							3	23.08	1	7.69	1	7.69
Other diseases of digestive system			2	6.25	6	18.75	5	15.62	3	9.38	3	9.38
Nephritis and Bright's disease					5	9.80	2	3.92	8	15.68	4	7.84
Other diseases of genito-urinary system.					1	25.00			1	25.00		
Miscellaneous and ill-defined causes.			1	3.57	1	3.57	3	10.72	6	21.43	1	3.57
Suicide			1	5.88	1	5.88	4	23.53	5	29.41		
Drowning					1	7.14	3	21.43	1	7.14	5	35.72
Burns, fractures, and wounds					5	20.84	8	33.34	4	16.67	4	16.67
Steam railway accidents			3	12.00	5	20.00	5	20.00	5	20.00	1	4.00
Deaths from other accidental causes.			1	5.88	4	23.53	3	17.65	3	17.65	4	23.53
Not reported					1	25.00	2	50.00	1	25.00		
Total	1	.11	47	5.31	127	14.38	139	15.69	154	17.38	118	13.32

[a] Including 4, age not reported.

[b] Including 1, age not reported.

From this it will be seen that tuberculosis of the lungs (consumption) caused the death of 287 out of the total 898, or 31.96 per cent of all deaths were from this cause. Of the 283 for whom age at death was shown 23, or 8.13 per cent, died between the ages of 20 and 24; 63, or 22.26 per cent, between 25 and 29 years of age, and 143, or practically 51 per cent, died before they were 35 years old, while 236 out of 283, or nearly 83.4 per cent, died before they were 45. The average age at death for the 283 whose ages were reported was 34.8 years.

Heart disease, which it has been claimed is superinduced by the blower's trade, claims the next highest percentage of deaths, i. e., 83, or 9.24 per cent. The greatest percentage of deaths from this cause falls between the ages of 40 and 44, being 21.69 per cent.

Owing to the nature of the work, the sudden and extreme changes of temperature to which the workers are subject, pneumonia naturally ranks high in the death rate of glass blowers, 7.68 per cent dying from this cause. Of the 69 deaths from this cause, 39, or 56.51

BLOWERS' ASSOCIATION OF UNITED STATES AND CANADA, 1892 TO 1908.

Number and per cent of deaths in each specified age group.														Total deaths.	
45 to 49 years.		50 to 54 years.		55 to 59 years.		60 to 64 years.		65 to 69 years.		70 to 74 years.		75 years and over.			
No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent from each cause.
3	11.11	2	7.41	1	3.70	.....	....	.....	....	.....	....	.....	....	27	3.01
1	14.29	1	14.28	.....	....	.....	....	.....	....	1	14.28	.....	....	7	.78
19	6.71	15	5.30	4	1.41	5	1.77	4	1.41	.....	....	.....	....	[a]287	31.96
.....	....	.....	....	.....	....	.....	....	.....	....	.....	....	.....	....	8	.89
1	4.35	3	13.04	5	21.74	1	4.35	1	4.35	1	4.35	.....	....	23	2.56
1	14.28	.....	....	.....	....	1	14.28	.....	....	.....	....	.....	....	7	.78
1	6.25	2	12.50	.....	....	2	12.50	1	6.25	.....	....	.....	....	[b] 17	1.89
3	15.00	2	10.00	2	10.00	1	5.00	4	20.00	2	10.00	.....	....	20	2.23
.....	....	.....	....	1	4.76	5	23.81	5	23.81	1	4.76	1	4.76	21	2.34
2	7.69	2	7.69	2	7.69	1	3.85	2	7.69	.....	....	2	7.69	26	2.90
7	8.43	7	8.43	10	12.05	6	7.23	7	8.43	4	4.82	2	2.41	83	9.24
1	10.00	2	20.00	1	10.00	.....	....	1	10.00	1	10.00	.....	....	10	1.11
4	5.80	3	4.35	1	1.45	2	2.90	3	4.35	4	5.80	.....	....	69	7.68
2	7.14	3	10.72	1	3.57	2	7.14	3	10.72	2	7.14	2	7.14	28	3.12
2	11.12	.....	....	2	11.12	1	5.55	2	11.12	1	5.55	1	5.55	18	2.00
3	27.27	1	9.09	.....	....	.....	....	.....	....	.....	....	.....	....	11	1.22
2	15.39	3	23.08	.....	....	1	7.69	.....	....	1	7.69	1	7.69	13	1.45
4	12.50	5	15.62	3	9.38	.....	....	1	3.12	.....	....	.....	....	32	3.56
9	17.65	3	5.88	6	11.77	6	11.77	6	11.77	1	1.96	1	1.96	51	5.68
.....	....	.....	....	1	25.00	1	25.00	.....	....	.....	....	.....	....	4	.45
3	10.72	3	10.72	4	14.28	2	7.14	2	7.14	1	3.57	1	3.57	28	3.12
3	17.65	3	17.65	.....	....	.....	....	.....	....	.....	....	.....	....	17	1.89
2	14.29	.....	....	1	7.14	1	7.14	.....	....	.....	....	.....	....	14	1.56
1	4.16	1	4.16	.....	....	.....	....	1	4.16	.....	....	.....	....	[b] 25	2.78
2	8.00	2	8.00	2	8.00	.....	....	.....	....	.....	....	.....	....	[c] 27	3.01
1	5.88	.....	....	.....	....	1	5.88	.....	....	.....	....	.....	....	[a] 21	2.34
.....	....	.....	....	.....	....	.....	....	.....	....	.....	....	.....	....	4	.45
77	8.69	63	7.11	47	5.31	39	4.40	43	4.85	20	2.26	11	1.24	[d]898	100.00

[c] Including 2, age not reported.

[d] Including 12, age not reported.

per cent, occurred before the age of 40 years, while 52, or 75.35 per cent, died before the age of 45 years.

There has been much recent discussion, especially in Germany, of the subject of alcoholism in the glass industry. This discussion has included all kinds of blowers and glass workers, while the statistics here presented are for the bottle blowers only. The window-glass blowers may or may not be greater sufferers from alcoholism than the bottle blowers. The death records of window-glass blowers are not here available, neither have we any adequate data from the divisions of the trade included in the American Flint Glass Workers Union, such as pressers, lantern globe and chimney blowers, makers of shades, tableware, etc., as only a few local organizations or constituent unions of that general organization pay death benefits or keep records of deaths.

Taking the records of the bottle blowers, however, which include the blowers of beer bottles, druggist prescription bottles, and kindred ware, the percentage of deaths from alcoholism, which is the acute form of troubles arising from excessive drink, is 0.78 of 1 per cent and included but 7 deaths in a period of seventeen years.

If to the deaths from alcoholism we add those from cirrhosis of the liver, which is the usual chronic form of trouble arising from alcoholic excesses, we still have but 18 deaths, which are but about 2 per cent of the total deaths. It must not be forgotten that cirrhosis is sometimes, though rarely, found where alcohol could not have been the cause. Even where alcoholic drinks are used in excess, the effects would be counteracted to some extent by the nature of the work. Working in a temperature ranging from 100° to 140° F., the amount of perspiration thrown off is enormous and constant. Such poisons as result from excessive drink and which ordinarily show themselves in cirrhosis of the liver or in acute alcoholism are thrown off through the pores to a very great extent during these hours of intense perspiration and leave the system comparatively unharmed. It is the principle of the Turkish bath, as applied to conditions of ordinary intoxication, applied constantly to the system as the result of the trade life and which enables the blower to drink a maximum of alcoholic liquors with a minimum of effect. How far the drink habit may weaken the general powers of resistance and therefore express itself in the high death rate from tuberculosis of the lungs and diseases of the heart only a study of the history of a large number of cases could determine.

One of the causes of the large proportion of deaths from tuberculosis is the practical absence of any sanitary or hygienic regulation of the use of blowpipes. In only one plant was found a full set of pipes for each blower, who was required to use only his own set. Everywhere else blowers' pipes passed from mouth to mouth without having been disinfected or even cleaned. Not only does the mouthpiece here become an ideal means of distributing the disease among the blowers and the boys, but the practice of blowing saliva into and through the pipe to get the additional expansive force of steam in addition to the breath in blowing larger ware makes the whole canal through the pipe a perpetual culture bed for the bacilli. In case of large window-glass cylinders, or very large carboys, a little water is poured down the blowpipe to make steam, but ordinarily saliva is used. In this connection, too, it must be borne in mind that in some cases "blow-up boys" are used. That is, a boy, generally the clean-off, is paid a small amount extra by the blower or the firm to start the blowing. That is to say, he blows into the pipe while the glass gather is still on the marver or as soon as it is taken off, and thus forms a hollow bulb on the end of the blowpipe, which saves the breath and lung power of the blower very materially.

Again the practice of "daubing" brings all the boys in the shop or in the blow room into direct contact with these undisinfected blowpipes. "Daubing" is the name given to that general custom and practice by which a boy has a right to gather a "gob" and attempt to blow a bottle during tempos and meal hours. It is the beginning of his apprenticeship to the trade of a blower. Custom gives each boy the right to four "daubs" a day. The boys are usually very jealous of this right and will and often do go on strike for its enforcement. In order to get his "daub" the boy picks up any blowpipe and uses it.

Taking the five causes of death usually considered to be superinduced by the glass business, namely, tuberculosis of the lungs, heart disease, nephritis and Bright's disease, alcoholism and cirrhosis of the liver, and pneumonia and other diseases of the respiratory organs, these have been more fully analyzed in the following table, which shows each of the above separately, followed by the figures for all other diseases.

The exposure to extremes of heat and cold that is generally supposed to peculiarly expose the glass blower to pneumonia would to an equal degree superinduce all the other troubles of the respiratory organs, and these have been combined in the following table, as have alcoholism and cirrhosis of the liver for the reason stated above.

NUMBER AND PER CENT OF DEATHS AMONG GLASS BLOWERS FROM TUBERCULOSIS OF LUNGS.

Year.	Number and per cent of deaths from each specified cause.							
	20 to 24 years.		25 to 34 years.		35 to 44 years.		45 to 54 years.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
1892	1	33.3	1	25.0			1	50.0
1893			3	33.3	3	33.3		
1894			3	50.0	3	42.8		
1895	1	50.0	6	40.0	4	57.1	1	50.0
1896			3	42.9	2	20.0		
1897			7	87.5	6	42.9	1	20.0
1898			4	50.0	1	14.3	1	50.0
1899	1	50.0	7	70.0	4	33.3	1	33.3
1900	3	75.0	4	44.4	3	23.1	3	75.0
1901	3	100.0	6	54.5	4	26.6	5	35.9
1902			13	46.4	5	29.4	4	28.6
1903	2	28.6	5	22.8	4	22.2	1	12.5
1904	2	66.7	11	37.9	10	37.1	6	46.1
1905	2	50.0	14	43.8	12	50.0	2	15.4
1906	1	33.3	9	45.0	9	29.1	2	8.7
1907	[b] 7	70.0	10	43.5	12	37.5	4	23.5
1908	1	25.0	13	52.0	11	44.0	2	13.3
Total	[b] 24	50.0	119	44.8	93	34.2	34	24.3

PNEUMONIA AND OTHER DISEASES OF THE RESPIRATORY SYSTEM.

1892	1	33.3						
1893								
1894			1	16.7	2	28.6		
1895			1	16.7				
1896	1	100.0	1	14.2	1	100.0		
1897					1	7.1	1	20.0
1898					1	14.3		
1899								
1900					4	30.7	1	25.0
1901			2	18.2	1	6.7	1	7.1
1902			3	10.7	3	17.6	2	14.3
1903	2	28.6	4	18.2	1	5.6		
1904			3	10.4	5	18.5		
1905			1	3.1	2	8.3	2	15.4
1906			3	15.0	3	9.7	2	8.7
1907	2	20.0	3	13.0	3	9.4	1	5.9
1908	1	25.0	2	8.0	7	28.0	2	13.3
Total	7	14.6	24	9.0	34	12.5	12	8.6

NEPHRITIS AND BRIGHT'S DISEASE.

1892								
1893								
1894					1	14.3	2	50.0
1895			1	6.7				
1896					1	10.0		
1897								
1898								
1899					2	16.7		
1900					1	7.7		
1901								
1902			1	3.5			1	7.1
1903			2	9.1	3	16.6	1	12.5
1904							2	15.4
1905			2	6.3				
1906			1	5.0	2	6.4	4	17.4
1907					2	6.3	2	11.8
1908								
Total			7	2.6	12	4.4	12	8.6

SPECIFIED CAUSES, BY AGE AT DEATH AND YEAR, 1892 TO 1908.

TUBERCULOSIS OF LUNGS.

Number and per cent of deaths from each specified cause.								Death rate per 1,000 members.
55 to 64 years.		65 years and over.		Not reported.		All ages.		
Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	
....	....	....	....	1	100.0	4	28.6	(a)
....	....	....	....	1	100.0	7	28.0	(a)
1	33.3	....	....	....	....	7	33.3	(a)
1	25.0	....	....	....	....	13	42.0	5.65
....	....	....	....	....	....	5	20.8	2.04
1	20.0	1	33.3	....	....	16	45.7	6.34
....	....	....	....	....	....	6	25.0	2.22
....	....	....	....	....	....	13	43.3	4.56
2	50.0	....	....	....	....	15	40.6	4.69
1	50.0	....	....	....	....	19	38.8	4.58
1	16.6	1	14.3	....	....	24	33.3	4.36
....	....	....	....	....	....	12	17.4	1.88
1	16.7	....	....	....	....	30	34.1	4.23
....	....	....	....	2	33.3	32	35.2	4.27
....	....	....	....	....	....	21	22.6	2.63
1	11.1	1	5.0	....	....	35	31.5	4.02
....	....	1	16.7	....	....	28	33.3	3.01
9	10.5	4	5.4	4	33.3	287	32.0	....

PNEUMONIA AND OTHER DISEASES OF THE RESPIRATORY SYSTEM.

....	....	....	....	....	....	1	7.1	(a)
....	....	1	100.0	....	....	1	4.0	(a)
....	....	....	....	....	....	3	14.3	(a)
....	....	....	....	....	....	1	3.2	0.43
....	....	1	50.0	....	....	4	16.7	1.63
....	....	1	33.3	....	....	3	8.6	1.19
1	20.0	....	....	....	....	2	8.3	.74
....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	5	13.5	1.56
....	....	1	25.0	....	....	5	10.2	1.20
1	16.7	2	28.6	....	....	11	15.3	2.00
....	....	1	25.0	....	....	8	11.6	1.25
....	....	....	....	....	....	8	9.1	1.13
....	....	2	33.3	....	....	7	7.7	.93
1	11.1	1	16.7	....	....	10	10.7	1.25
1	11.1	3	15.0	....	....	13	11.7	1.49
2	28.6	1	16.7	....	....	15	17.9	1.61
6	7.0	14	18.9	....	....	97	10.8	....

NEPHRITIS AND BRIGHT'S DISEASE.

....	....	....	....	....	....	....	....	....
1	25.0	....	....	....	....	1	4.0	(a)
2	66.7	....	....	....	....	5	23.8	(a)
....	....	....	....	....	....	1	3.2	0.43
1	33.3	....	....	....	....	2	8.3	.82
1	20.0	....	....	....	....	1	2.8	.40
....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	2	6.7	.70
1	25.0	....	....	....	....	2	5.4	.63
....	....	1	25.0	....	....	1	2.0	.24
1	16.7	1	14.3	....	....	4	5.6	.74
1	10.0	....	....	....	....	7	10.1	1.09
....	....	1	11.1	....	....	3	3.4	.42
....	....	....	....	....	....	2	2.2	.27
1	11.1	2	33.3	....	....	10	10.7	1.25
2	22.2	2	10.0	....	....	8	7.2	.92
1	14.3	1	16.7	....	....	2	2.4	.22
12	13.9	8	10.8	....	....	51	5.7	....

a Not reported.

b Including 1 person 19 years of age.

NUMBER AND PER CENT OF DEATHS AMONG GLASS BLOWERS FROM

ORGANIC HEART DISEASE.

Year.	Number and per cent of deaths from each specified cause.							
	20 to 24 years.		25 to 34 years.		35 to 44 years.		45 to 54 years.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
1892								
1893			1	11.1	1	11.1		
1894								
1895								
1896					1	10.0		
1897					2	14.3		
1898			1	12.5			1	50.0
1899					2	16.7		
1900	1	25.0			2	15.4		
1901					1	6.7	1	7.1
1902			2	7.2	2	11.8	1	7.1
1903			1	4.5	1	5.6		
1904			4	13.8	2	7.4		
1905			3	9.3	4	16.7	1	7.7
1906			1	5.0	4	12.9	4	17.4
1907			1	4.4	1	3.1	1	5.9
1908					2	8.0	5	33.4
Total	1	2.1	14	5.3	25	9.2	14	10.0

ALCOHOLISM AND CIRRHOSIS OF LIVER.

Year.	20 to 24 years. Number.	20 to 24 years. Per cent.	25 to 34 years. Number.	25 to 34 years. Per cent.	35 to 44 years. Number.	35 to 44 years. Per cent.	45 to 54 years. Number.	45 to 54 years. Per cent.
1892								
1893								
1894							1	25.0
1895								
1896								
1897								
1898								
1899								
1900								
1901					1	6.7		
1902					2	11.8		
1903			1	4.5				
1904					2	7.4		
1905					1	4.2	1	7.7
1906			1	5.0	2	6.4	2	8.7
1907					1	3.1	1	5.9
1908			1	4.0				
Total			3	1.1	9	3.3	5	3.5

ALL OTHER CAUSES.

Year.	20 to 24 years. Number.	20 to 24 years. Per cent.	25 to 34 years. Number.	25 to 34 years. Per cent.	35 to 44 years. Number.	35 to 44 years. Per cent.	45 to 54 years. Number.	45 to 54 years. Per cent.
1892	1	33.4	3	75.0	4	100.0	1	50.0
1893	1	100.0	5	55.6	5	55.6		
1894	1	100.0	2	33.3	1	14.3	1	25.0
1895	1	50.0	7	46.6	3	42.9	1	50.0
1896			3	42.9	5	50.0	1	100.0
1897			1	12.5	5	35.7	3	60.0
1898			3	37.5	5	71.4		
1899	1	50.0	3	30.0	4	33.3	2	66.7
1900			5	55.6	3	23.1		
1901			3	27.3	8	53.3	7	50.0
1902			9	32.2	5	29.4	6	42.9
1903	3	42.8	9	40.9	9	50.0	6	75.0
1904	1	33.3	11	37.9	8	29.6	5	38.5
1905	2	50.0	12	37.5	5	20.8	7	53.8
1906	2	66.7	5	25.0	11	35.5	9	39.1
1907	1	10.0	9	39.1	13	40.6	8	47.0
1908	2	50.0	9	36.0	5	20.0	6	40.0
Total	16	33.3	99	37.2	99	36.4	63	45.0

SPECIFIED CAUSES, BY AGE AT DEATH AND YEAR, 1892 TO 1908—Concluded.

ORGANIC HEART DISEASE.

Number and per cent of deaths from each specified cause.								Death rate per 1,000 members.
55 to 64 years.		65 years and over.		Not reported.		All ages.		
Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	
...	...	...	...	...	...	...	...	...
1	25.0	...	...	...	...	3	12.0	(a)
...	...	...	...	...	...	...	...	...
1	25.0	...	...	...	...	1	3.2	0.43
1	33.3	...	...	...	...	2	8.3	.82
...	...	1	33.4	...	...	3	8.6	1.19
1	20.0	...	...	...	...	3	12.5	1.11
1	33.3	...	...	...	...	3	10.0	1.05
...	...	1	33.3	...	...	4	10.8	1.25
1	50.0	1	25.0	...	...	4	8.2	.96
...	...	1	14.3	...	...	6	8.3	1.09
2	20.0	1	25.0	...	...	5	7.3	.78
1	16.7	2	22.2	...	...	9	10.2	1.27
...	...	1	16.7	...	...	9	9.9	1.20
3	33.3	1	16.7	...	...	13	14.0	1.63
3	33.4	3	15.0	...	...	9	8.1	1.03
1	14.3	1	16.6	...	...	9	10.7	.97
16	18.6	13	17.6	...	...	83	9.2	...

ALCOHOLISM AND CIRRHOSIS OF LIVER.

Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Death rate per 1,000 members.
...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	1	4.8	(a)
...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	1	2.0	0.24
...	...	...	...	...	...	2	2.8	.36
1	10.0	...	...	...	...	2	2.9	.31
...	...	...	...	...	...	2	2.3	.28
...	...	...	...	...	...	2	2.2	.38
...	...	...	...	...	...	5	5.4	.63
...	...	...	...	...	...	2	1.8	.23
...	...	...	...	...	...	1	1.2	.11
1	1.2	...	...	...	...	18	2.0	...

ALL OTHER CAUSES.

Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Death rate per 1,000 members.
...	...	...	...	...	...	9	64.3	(a)
2	50.0	...	...	...	...	13	52.0	(a)
...	...	...	...	...	...	5	23.8	(a)
2	50.0	1	10.0	...	...	15	48.4	6.52
1	33.4	1	50.0	...	...	11	45.9	4.49
3	60.0	...	...	...	...	12	34.3	4.75
3	60.0	2	100.0	...	...	13	54.2	4.81
2	66.7	...	...	...	...	12	40.0	4.21
1	25.0	2	66.7	...	...	11	29.7	3.44
...	...	1	25.0	...	...	19	38.8	4.58
3	50.0	2	28.5	...	...	25	34.7	4.55
6	60.0	2	50.0	...	...	35	50.7	5.47
4	66.6	6	66.7	1	100.0	36	40.9	5.07
6	100.0	3	50.0	4	66.7	39	42.8	5.20
4	44.5	2	33.3	1	100.0	34	36.6	4.25
2	22.2	11	55.0	...	...	44	39.7	5.06
3	42.8	2	33.3	2	100.0	29	34.5	3.12
42	48.8	35	47.3	8	66.7	362	40.3	...

a Not reported.

The above table shows the number and percentage of deaths in each age group from the cause named, by years. It is to be read in the following manner, taking, for instance, the table showing deaths from tuberculosis of the lungs: In 1892 we have 1 death in the age group from 20 to 24 years of age; the second column, or per cent, shows 33.3 per cent, which indicates that there were 3 deaths in 1892 of men between 20 and 24 years of age, and one-third of these died from tuberculosis. Or, taking the year 1895, there was 1 death from tuberculosis of a man between 20 and 24 years of age, and this was 50 per cent of all deaths between those ages that year, 6 deaths of men between 25 and 34 years of age, and these were 40 per cent of all the deaths between these ages during that year. The concluding columns show the total number dying from tuberculosis of the lungs at all ages, and the percentages of these of the total deaths of the year named, while the concluding line of the table shows all deaths from the cause named by age groups and the percentage they bear to all deaths at these ages. For instance, in all seventeen years 24 young men from the age of 20 to 24 years died of consumption, and these were 50 per cent of all deaths between these ages; 119 between 25 and 34 years of age died from the same disease, and these constituted 44.8 per cent of all deaths between these ages. The other sections of this table should be read in the same way.

The purpose of the following table is to emphasize and bring more closely together the age at death from all causes and from certain specific causes, and the percentage of deaths from such causes compared with the percentage of deaths from like causes of males occupied in manufacturing and mechanical industries:

AVERAGE AGE OF GLASS-BOTTLE BLOWERS AT DEATH AND PER CENT OF DEATHS DUE TO EACH SPECIFIED DISEASE.

Disease.	Bottle blowers.		Males in manufacturing and mechanical industries.
	Average age at death.	Per cent of total deaths.	Per cent of total deaths.
Typhoid fever	37.1	3.01	2.59
Tuberculosis of lungs	34.8	32.00	18.50
Organic heart disease	48.2	9.25	10.51
Pneumonia	40.0	7.69	9.96
Disease of urinary system	49.3	6.13	9.37
Total	41.4	100.00	....

It is thus seen that the average age at death for all bottle blowers is 41.4 years; that of those dying from tuberculosis of the lungs the average age at death is 34.8 years; that these form 32 per cent of all deaths, whereas in mechanical and manufacturing industries the per cent of deaths from this cause is 18.5.

What this table further shows is that in no disease except tuberculosis is the glass blowers' percentage of deaths greatly in excess of that discovered among workingmen in general. Only in typhoid fever is the rate even as high, and this is so entirely a local question, probably due largely to the impurity of drinking-water supply, that the glass industry could superinduce it only in so far as the occupation causes excessive drinking of water in localities where the water was impure. At any rate the excess percentage, or difference in percentage, 3.01 as against 2.59, is not sufficient to indicate a tendency, even if typhoid fever could ever be considered a disease attributable to occupation.

This table shows that glass blowers are not more subject to pneumonia than are other workingmen, notwithstanding the extreme changes of temperature, and the reason for this may perhaps be in the trade custom of wearing wool shirts the year around, thus protecting themselves from the chill that would otherwise follow sudden passage from hot zones to cold belts in the furnace room.

In the following table the deaths from the selected causes as heretofore named, together with death from other and from all causes, have been related to the membership of the organization, by years, after 1894. The membership of the organization prior to 1895 could not be ascertained with sufficient accuracy to justify the computation of death rates.

DEATHS FROM ALL CAUSES AND FROM CERTAIN SPECIFIED CAUSES, AVERAGE
ERS' ASSOCIATION, 1892

	1892.	1893.	1894.	1895.	1896.	1897.	1898.
Total deaths, all causes	14	25	21	31	24	35	24
Death rate per 1,000 members	(a)	(a)	(a)	13.5	9.8	13.9	8.9
Average age at death	34.6	39.3	40.6	37.4	40.8	43.3	43.9
Deaths due to following causes:							
Tuberculosis of lungs—							
Number of deaths	4	7	7	13	5	16	6
Per cent of total deaths	28.57	28.00	33.33	41.93	20.84	45.71	25.00
Deaths per 1,000 members	(a)	(a)	(a)	5.65	2.04	6.34	2.22
Pneumonia—							
Number of deaths	1	1	2	1	2	2	2
Per cent of total deaths	7.14	4.00	9.53	3.23	8.33	5.71	8.33
Deaths per 1,000 members	(a)	(a)	(a)	.43	.82	.79	.74
Organic heart disease—							
Number of deaths	....	3	....	1	2	3	3
Per cent of total deaths	....	12.00	....	3.23	8.33	8.57	12.50
Deaths per 1,000 members	(a)	(a)	(a)	.43	.82	1.19	1.11
Nephritis and Bright's disease—							
Number of deaths	....	1	5	1	2	1	....
Per cent of total deaths	....	4.00	23.81	3.23	8.33	2.86	....
Deaths per 1,000 members	(a)	(a)	(a)	.43	.82	.40	....
All other causes—							
Number of deaths	9	13	7	15	13	13	13
Per cent of total deaths	64.29	52.00	33.33	48.38	54.17	37.15	54.17
Deaths per 1,000 members	(a)	(a)	(a)	6.52	5.31	5.15	4.81

[a] Not reported.

The following table compares deaths of glass blowers from consumption to deaths from the same cause for total population within registration area of the United States census, by age groups:

PER CENT OF ALL DEATHS FROM KNOWN CAUSES DUE TO CONSUMPTION, BY AGE GROUPS, FOR REGISTRATION AREA OF UNITED STATES, 1900, AND FOR GLASS BOTTLE BLOWERS, 1892 TO 1908.

Age.	Per cent of all deaths from known causes due to consumption.	
	Males (census of 1900).	Glass blowers (G. B. B. A., 1892 to 1908).
15 to 19 years	22.99	....
20 to 24 years	32.46	48.94
25 to 29 years	33.61	49.60
30 to 34 years	31.85	40.58
35 to 39 years	26.90	35.71
40 to 44 years	21.95	32.20
45 to 49 years	17.85	24.67
50 to 54 years	13.62	23.81
55 to 59 years	10.24	8.51
60 to 64 years	7.45	12.82
65 to 69 years	5.46	9.30
70 to 74 years	3.73	....
75 years and over	.84	....

The number of glass blowers and glass workers reported in the registration States at the Twelfth Census, 1900, was 10,219, the number of deaths of glass blowers and glass workers in the same area during the census year being 110, and the death rate 10.8 per 1,000. The death rates per 1,000 of population by age groups were as follows: At 15 to 24 years, 4.6; at 25 to 44 years, 10.9; at 45 to 64 years, 21.8; and at 65 years and over, 82.3.

AGE AT DEATH, AND DEATH RATE PER 1,000 MEMBERS IN GLASS BOTTLE BLOW-
TO 1908, BY YEARS.

1899.	1900.	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	Total, seventeen years.
30	37	49	72	69	88	91	93	111	84	898
10.5	11.6	12.0	13.1	10.8	12.4	12.1	11.6	12.3	9.0	(a)
37.3	40.8	42.0	41.7	40.5	41.5	40.2	43.1	44.1	41.0	41.4
13	15	19	24	12	30	32	21	35	28	287
43.33	40.54	38.78	33.33	17.39	34.09	35.17	22.58	31.53	33.33	31.96
4.56	4.69	4.58	4.36	1.88	4.23	4.27	2.63	4.02	3.01	(a)
....	5	4	5	5	7	5	9	10	8	69
....	13.51	8.16	6.94	7.25	7.95	5.49	9.68	9.01	9.52	7.68
....	1.56	.96	.91	.78	.99	.67	1.13	1.15	.86	(a)
3	4	4	6	5	9	9	13	9	9	83
10.00	10.81	8.16	8.33	7.25	10.23	9.89	13.98	8.11	10.72	9.24
1.05	1.25	.96	1.09	.78	1.27	1.20	1.63	1.03	.97	(a)
2	2	1	4	7	3	2	10	8	2	51
6.67	5.41	2.04	5.56	10.14	3.41	2.20	10.75	7.21	2.38	5.68
.70	.63	.24	.73	1.09	.42	.27	1.25	.92	.22	(a)
12	11	21	33	40	39	43	40	49	37	408
40.00	29.73	42.86	45.83	57.97	44.32	47.25	43.01	44.14	44.05	45.44
4.21	3.44	5.06	6.00	6.25	5.49	5.73	5.00	5.63	3.98	(a)

The death rates of the glass blowers and glass workers per 100,000 of population were above the average of the manufacturing and mechanical industry class, from consumption and accidents and injuries exclusive of suicide, and were generally below the class average in the other specified causes.(a)

DISEASES OF GLASS WORKERS.

The following in regard to the diseases of glass workers, the result of special studies and the testimony of the best medical experts, is presented here to show the health aspects of employment in the various occupations of the glass industry, as viewed by qualified students of the subject. Some of the occupations which are discussed in the following pages are not followed by either boys or women in any of the establishments investigated. There is, on the other hand, much concerning the work done by boys and women in these factories, and all of the occupations are largely supplied by boys who begin in the furnace room. It has seemed proper, therefore, to present these articles in full.

DISEASES INCIDENT TO THE GLASS INDUSTRY.(b)

In making the investigation of the diseases prevalent in the glass industry some difficulty has been experienced in securing the data from which a fairly accurate exposition of the health conditions could be made.

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[a] Twelfth Census, Vital Statistics, 1900, Part I, p. cclxxxiii.

[b] Twenty-fourth Annual Report of the Bureau of Statistics of Labor and Industries of New Jersey, 1901, pp. 355–362..

The records of the glass blowers were examined, health records carefully investigated, reports had from leading physicians who have large practice among the employees in this industry, and information obtained from glass blowers whose observations cover a period of many years. Everything possible has been done to make this paper reliable in all particulars, and while exact accuracy is not claimed, under the peculiar circumstances in which the data was obtained, it will be found that in all essential respects it is approximately correct.

GLASS FACTORIES.

First as to the factories in which the men are employed. In the last two decades some improvements have been made in the conditions surrounding the glass blowers while at work, especially in the new factories built within that period. For many years the factory buildings were the merest shells, affording but slight shelter and protection to the workman. The exposure particularly to the severe storms of winter was very great, and drafts of icy air were continually passing over the blowers so that they were almost burning upon the one side and freezing upon the other. Then, too, they stood upon the bare ground, which frequently became sodden with dampness from the water splashed around them when the pipes were being cooled. Many old blowers declare that while their bodies were bathed in perspiration from the heat of the furnace, their feet were aching from the cold. These conditions were very prejudicial to health, and coughs, colds and rheumatic pains were engendered which frequently developed into acute diseases of the throat and lungs which resulted fatally, and the mortality among glass workers from these causes was alarmingly high. In later years the manufacturers have given more attention to improving the surroundings of the workmen; the factories are, as far as practicable, weatherproof, and in many instances the furnaces have been so constructed that workmen can stand upon raised wooden platforms instead of the damp ground or brick pavements. These improvements have removed some of the most serious causes of ill health and greatly lessened the workman's liability to contract disease while at work.

TANK FURNACES.

But new elements of danger to health have been brought into play by the introduction of the "continuous tank furnace." The men employed in factories in which these are installed begin work at 5 p. m. and continue until 2.30 a. m., alternate weeks. It is severe upon all blowers, and especially so on the older men who have been accustomed for years to work out of a pot furnace and only during the day. The heat of a tank furnace is much greater than that of a pot furnace. There is an immense body of molten glass and a corresponding increase in the body of the fire. The alternation from day to night work weakens the system and reduces its power of resistance to attacks of disease. The alternation keeps the men under a continuous strain and they can not become accustomed to the recurring changes. They are to a great extent victims of insomnia, being unable to sleep in the daytime after night work, and can not enjoy a sound night's sleep in the week of their day work;

the men, in consequence, become nervous and depressed. The irregular meals, hurriedly partaken of, disorder the stomach and seriously affect all the organs of digestion, and thus a great deal of time is lost from illness. Not only are the workmen compelled to endure higher degrees of heat, but in the arrangement of a tank furnace the men are crowded more closely together and have not the same opportunities to obtain air as in factories where pot furnaces only are in use. The working conditions, which are severe enough during the day, become infinitely more trying to physical endurance at night, the atmosphere then being usually close and moisture laden, greatly intensifies the enervating effects of the heat and makes work under such circumstances very exhausting in its effects.

To particularize: The night shift goes to work at 5 p. m., probably partaking of food before starting to the factory; about 8 o'clock a lunch is taken, and at 12 midnight there is a half hour's rest and another meal is eaten; at 2.30 a. m. the men leave the factory and repair to their homes where they must wash and change underwear, so that it is 3.30 or 4 o'clock when they finally reach their beds to seek rest and sleep.

Interviews with a large number of the blowers show that with many sound sleep is out of the question; they may doze fitfully for two or three hours, but the street noises which begin with dawn arouse them, and they can not get to sleep again, and arise unrested and unrefreshed. This is the status for one week; the ensuing week presents entirely different conditions. Work is in the daytime, the meals are more regular and the entire night is before them for sleep. But this alternation injuriously affects the workman; his meals are not enjoyed and his nights are restless, his sleep broken and lacking in that refreshment that should come naturally to the tired worker.

John W. Wade, M. D., health physician of the city of Millville, says: "These are conditions in a sanitary point of view that are now menacing the health of the hollow-ware blower as well as that of the window-glass worker—one is the wearying night hours which places a great strain on the vitality of the workman; another is the careless exchange of pipes while working; numerous instances showing the transmission of throat and mouth diseases, acute and chronic, by this means have come to my notice. A third is the too free use of ice water in which the workmen in glass factories indulge."

These are the conditions which tell upon the health of the glass worker; he becomes nervous, depressed and shaken; he suffers the horrors of dyspepsia and indigestion, with a sure and certain weakening of the system which predisposes him to become the victim of some organic disease.

It is no wonder, then, that throughout the West and some portions of the East there is already strong agitation for the abandonment of all night work. Two methods are spoken of—one, abolishing night work altogether; the other, that men shall be employed to work continuously at night, and thus prevent the evils arising from the alternation from day to night work. So far as it has been possible to obtain the views of the glass blowers, they favor the entire abolition of night work.

TENDING BOYS.

If the conditions heretofore spoken of so seriously affect the strong men, what shall be said of their ultimate effect upon the health of the tending boys? At a period of life when it is essential that their habits should be regular, particularly as to eating and sleeping, so that healthy physical growth should not be impeded or interfered with in any way, these little fellows, many of them of very tender years, are forced by the nature of the work assigned them to violate continuously the laws of health, and it would be a miracle indeed if some were not cut off before reaching the years of manhood, while many others attain that period of life prematurely decrepit and without the mental and bodily vigor that should be the best heritage of young manhood. The boys who work through the night, when they should be enjoying sound and refreshing sleep, exhibit clearly to the observer the pernicious and baneful effects of this disregard of natural laws in their pallid and drawn features, stunted growth and shrunken chests and limbs. If they reach the years of manhood, many of them will be constant sufferers from painful and distressing complaints.

This, to say nothing of their reaching maturity without education and without a trade. Unfortunately, glass factories can not be run without boys. Large sums have been expended by the manufacturers in experiments to find a way of doing by machinery, at least in part, the work now being done by them, but these efforts have resulted in failure in every instance. Many of these boys bear the scars of severe burns. In the crowded factories where so many of them are constantly moving to and fro carrying the hot bottles, occasional collisions are inevitable, and some of the boys show the marks of these terrible burnings in the form of scars which they will bear all through their lives. Another evil, but one for which the factory owners are not responsible, is the habit of many boys after work is over to lie down and sleep in the factory. It is dark and stormy perhaps when work is done, and the little fellows are afraid to face the darkness and the storm, and so try to get what sleep they can near the furnaces until the day dawns. This is another health-demoralizing condition. It is indeed a hard and trying life they lead, these boys of 9, 10, 11 years and upwards, for many such are in the factories, despite the provisions of the law.

THE GLASS BLOWERS.

Contributory negligence and carelessness of the workmen are certain incentives to slight attacks of disease. Glass blowers do not take proper care of themselves. Working as they do in a temperature of 100° to 130°, varying as the direction of the wind may be, their clothing saturated by perspiration, they take no precautions when leaving the factory, even in the depth of winter, to guard against the chill of the air outside, and in consequence many who are thus imprudent find themselves suddenly prostrated by illness and obliged to call in a physician to obtain relief from the results of their own imprudence.

Irregularity in eating and sleeping, disregard of ordinary precautions, the habitual use of large drafts of ice water, are the prime factors in creating acute attacks of dyspepsia and indigestion, from which glass workers suffer so much, and imprudent and unnecessary exposure aggravate and intensify diseases which attack the air passages. There is scarcely a glass blower to be found who does not suffer from some form of catarrh. Forethought and care exercised in guarding against the change from a high temperature to a low one would greatly improve the health conditions of men who work in the intense heat of the glass works. When a workman leaves the high temperature of the factory, say 90° to 100°, in midwinter to face the temperature outside, say 10° to 12°, his underclothing wet with perspiration, without preparing himself thoroughly for the great change, he certainly invites disease to fasten upon his throat and lungs or give a dangerous chill to the circulatory system, no matter how stalwart his frame or how robust his general health may be. The reaction is too sudden and severe.

An instance of the effect of this sudden change with fatal results was recently noted. A glass blower was called from his work to go to the gate to see a friend on a matter of business; the time was about 7 p. m.; he had been at work from 5 o'clock, and had become very greatly heated. He laid aside his pipe, and, without providing in the least against the danger of a chill, went to meet his friend. He was absent from the factory less than five minutes, and as he entered on his return he staggered and fell dead before he reached the foot bench. A sudden chill paralyzed the action of the heart, and, although accounted one of the strongest and healthiest men among all the workmen, he succumbed to the shock.

Noting this peculiar incident, 15 glass blowers, ranging in age from 18 to 40, were examined by a physician for the purpose of this paper, and the heart's action was found to be irregular in every one of them. Now, these 15 men should be extremely cautious about subjecting themselves to sudden and violent changes of temperature, never going out of the factory without wrapping up well as a protection against the danger of sudden and severe shock to the system, but it is doubtful whether any of them will ever take such precaution.

EFFECT ON THE EYES.

One disease which has become very noticeable among glass blowers is inflammation of the eyes. The cause of this is that in approaching the furnace to gather glass the position is such that the eye, right or left as the blower may be right or left handed, is brought close to the intense heat and glare of the opening through which the glass is gathered, and the result is to cause progressive dimness of the sight. In many cases the eyes of the workman are affected to such an extent that he is no longer able to pursue this occupation, and is compelled to seek other employment.

Quite recently there was a convention of leading oculists and opticians in the village of Clayton in this State. They had assembled to ascertain if some system of protection for the eyes of the glass workers could not be devised in the shape of glasses or other device that would relieve the blowers from the effects of the intense heat and glow of the furnace. A large number of men were examined, the conditions under which they did their work investigated, but no effective measure of relief suggested itself to those noted specialists.

CONCLUSION.

In closing this paper it may be well to say that it is not claimed that all the diseases noted in the appended tables are necessarily peculiar to the glass industry, but it is certain that the environments of the workmen create tendencies to disease, which, taken with their own lack of care, have greatly aggravated attacks of sickness and in many cases caused them to assume characteristics very difficult to treat.

* * * * * * *

TABLE NO. 1.—LOST TIME FROM SICKNESS IN FIVE FACTORIES IN 1900 (1,500 WORKMEN).

	Number sick.	Number of days.
One day, and less than one week	133	266
One week, and less than two weeks	72	576
Two weeks, and less than one month	34	544
One month, and less than three months	22	1,320
Three months, and less than six months	18	2,160
More than six months	12	2,520
Entire ten months	9	2,600
Total	300	[a]10,026

[a] This total is not the correct sum of the items but is according to the original report.

In many factories there are a large number of substitutes, and these substitutes have almost continuous work during the entire blast in consequence of the sickness of one or another of the blowers.

TABLE NO. 2.—NATURE OF SICKNESS IN FIVE FACTORIES IN 1900.

	Number of cases.		Number of cases.
Pneumonia	18	Catarrh of stomach	15
Inflammation of lungs	21	Typhoid fever	9
Inflammation of throat	16	Ophthalmia	12
Bronchitis	10	Alcoholism (b)	44
Inflammation of liver	26	Dysentery	6
Inflammation of bowels	11	Disease of the heart	7
Obstruction of bowels (a)	6	Disease of the brain	3
Disease of kidneys	13	Abscesses	21
La grippe	76		

[a] Obstruction of the bowels caused by eating hard-boiled eggs, fried oysters, and other food difficult of digestion during the night work.

[b] In some of the factories the drinking habits of the men cause great loss of time and provoke attacks of illness which sometimes have fatal results.

LENGTH OF THE TRADE LIFE AMONG GLASS BOTTLE BLOWERS.(a)

The subject assigned me is "The length of the trade life among glass bottle blowers," a question on which I have no exact data, but from information at hand it is safe to say that the man blowing glass bottles to-day at the age of 55 years or over is the exception and one that is each year becoming more rare. This is a strange statement to make, because there are no just or logical reasons why worthy and willing men should not be allowed to work at their trade as long as they desire, or as long as necessity compels them to do so. Few indeed are the workmen in our craft, or any other for that matter, who make enough wages to retire with a competency at the approach of old age or the enforced expiration of their trade life.

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[a] Address by Denis A. Hayes, president of the Glass Bottle Blowers' Association of America, published in Annals of the American Academy of Political and Social Science, May, 1906, pp. 34–37.

It has been the common belief for years that glass blowing is an unhealthy occupation. Some insurance companies discriminate against the workers in this industry, but their action is based more upon suspicion than facts, because I doubt if glass blowing, so far as the work itself is concerned, is any more injurious than many other indoor occupations. There are, however, conditions which surround the work that are a menace to health and long life, but these unfavorable conditions can be and are being removed. The worst of them is child labor.

The trade requires speed, great skill and precision in workmanship. Nearly all blowers have been compelled to start work as early as 9 and 10 years of age. They serve as tending boys three or four years before being indentured as apprentices for a term of five years; during this latter time they receive but 50 per cent of the wages earned by the journeymen. Owing to modern improvements in the manufacture of glass and equipment of factories, an apprentice now in his first and second years can produce as much ware and of as good quality on many lines as a journeyman, but owing to the low wages at which boys work during the periods mentioned, employers still insist on a five-year term. This and the old belief that boys have to start work at an early age in order to learn the trade are to-day exploded theories. Nevertheless, every effort made by our organization to increase the age at which boys should be allowed to work is opposed by the average employer.

There are three sets of boys employed in glass bottle factories doing different kinds of work, generally of a light nature, but requiring activity. There is no reason whatever why any of them should be under 16 years old. A law of this kind has proven practical in States where this age is the limit below which children can not go to work, especially in Illinois, where the glass bottle industry has not suffered in the least as a result of such law.

Glass blowing is hot work, and owing to the heat no bottles are made during the months of July and August, but in May, June, and September it often becomes so warm that men can not work longer than a half hour at a time; then they are compelled to rush into the open air to prevent prostration. In factories with low roofs and insufficient ventilation men are often forced to stop work every twenty minutes, and in many factories they perspire freely even during the winter.

The sudden changes in temperature experienced by men in this condition may be resisted while youth and vigor remain, but, owing to the early age at which they go to work, their strength and vitality are not given a chance to fully develop or are almost entirely destroyed at an age when other men are entering the prime of life. Being deprived of schooling, they can have very little knowledge of hygienic rules or laws, hence do not sufficiently know how to protect themselves against the conditions here described. The result is that early in life they become victims of rheumatism, catarrh, throat troubles, and tuberculosis. The latter disease especially is most dreaded by our members.

Glass blowers do their best work between the ages of 20 and 35. The records of our insurance department show that most deaths occur between the ages of 40 and 50. This would not be the case, either in regard to disease or death, if children were not allowed to go to work until after 16 years of age, and not then unless they had received sufficient training and education to enable them to know the value of health and grow as their Creator intended they should.

This can be accomplished without loss to the employer or increase in price of ware to the consumer, for, as a result of the highly developed skill of the workmen, the greater production and the improved methods of manufacture, bottles sell to-day for less than one-half the price paid ten years ago; but when it comes to the health and life of boys and men such things as prices should not be considered. Yet it is to be regretted that in every effort made by trades unions to keep children out of factories, or better the conditions of those who are compelled to work under dangerous or insanitary conditions, we are usually met by such talk as competition, increased cost of production or the danger of reduced profits. This is a short-sighted policy, and would seem to imply that the dollar is of more consequence than the life or health of employees.

I have no desire to attribute all the ills of our craft to child labor; still it requires no argument to prove that it is wrong, both from a moral and humane point of view. Were it not for the exhaustion experienced by men whose vitality has been reduced, or never fully developed, as a consequence of their being put to work in certain industries when they should be at school, there would be far less intemperance, because men would not have to seek stimulants to give a false sense of recuperation or make them feel as they otherwise would if only in an ordinary condition of health.

Piecework prevails in the trade. Each year the production of the individual workman becomes greater. The highest day's work of the season becomes the standard for the next. A man working according to present-day methods can make three times as many bottles in a day of eight and a half hours as he did twenty years ago in a day of ten hours, but the expenditure of strength and energy is now much greater than it was then. Thus the exhaustion consequent upon working with speed and regularity at a hot furnace is another good reason why boys should be kept out of glass factories until they are of the age previously mentioned. Not only this, but the hours of labor should be still further reduced, so that men would, after leaving their work, retain sufficient mental and physical vigor for recreation, study, and social intercourse.

The working time in the bottle trade is eight and a half hours on both day and night shifts; these alternate every other week. During recent years our efforts have been centered mainly upon reducing the hours of labor and agitating to increase the age at which children could work. In both of which we have in a large measure succeeded. To-day we regard these things as of more importance than an increase in wages. Formerly the night shift finished the week by starting at 5 o'clock Saturday evening and working until midnight. We have had this stopped, and now boys on this turn are done at 3 o'clock Saturday morning.

These, with other children who are now working in the mills and factories, will help make up the workmen and citizens of the future, and doubtless have greater responsibilities and problems to meet than those of the present day. The glass bottle blowers, with other trade unions, will therefore strive as never before to see that these children are properly trained and educated to meet whatever duties may fall to their lot, and be given opportunities which we, as workmen, were denied.

Organized labor is doing much good. More so than its critics or opponents give it credit for, and, notwithstanding adverse circumstances, we are hopeful and are looking forward to the time when the "crooked places shall be made straight and the rough places plain."

DANGERS TO HEALTH IN GLASS CUTTING AND POLISHING.(a)

Operations which cause glass dust in the air are recognized as especially dangerous to health, such dust being quite as irritating as steel dust, if not more so. This being the case, glass cutting and polishing are conducted with a minimum of danger in the wet way.

In cutting, the pattern is marked out with red lead or with graphite, and then the object is held against a rapidly revolving steel wheel upon which fine quartz sand and water are dropped continuously, or upon a wheel of fine emery and corundum. When the pattern has been cut out, the glass is plunged into hydrofluoric acid in lead tanks, connected with the exhaust pipe of a steam-propelled blower. This smooths the cut surfaces, but acts on the uncut parts to such an extent as to make polishing necessary. This is done with pumice or rotten stone and water or oil on revolving brushes, and putty powder or rouge and wax on wooden wheels. The use of oil or water serves to prevent dust, and the employment of wooden shields protects the worker from being spattered with the mixture of water or oil and glass powder and other materials thrown off in the process.

DANGERS TO HEALTH IN GLASS POLISHING.(b)

Glass and crystal, when cut and made into the various products for which there is a market, have to be polished. This is usually done by means of revolving brushes running at high speed. Rouge or putty powder mixed with water is allowed to fall on the revolving brushes. Putty powder contains 28 to 29 per cent of oxide of tin and 68 to 70 per cent of oxide of lead, and as the revolving brushes run at great speed a good deal of spray is thrown off, which falls upon the clothes and hands of the workers and also upon the floors of the workroom. The liquid dries on the floor, and subsequently, owing to the traffic in the room, the putty powder rises into the atmosphere as fine dust and is inhaled by the work people. As to the harmful effects of putty powder on glass polishers I had abundant evidence when on the dangerous trades committee of the Home Office. Several of the workers I examined had been obliged to give up work on account of paralysis of the hands and wrists, others had suffered from severe colic. A few deaths from saturnine encephalopathy were reported to us.

Various substitutes have been tried for rouge and putty powder, but as in some of the substituted powders Professor Thorpe found

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[a] Report of the State Board of Health of Massachusetts upon the Sanitary Condition of Factories, Workshops and Other Establishments Where Persons are Employed, 1907, p. 80.

[b] Thomas Oliver, Diseases of Occupation, pp. 181 and 182.

arsenic to the extent of 0.13 per cent estimated as arsenious acid, this was only replacing one poison in the powder for another and had, therefore, to be abandoned. The employment of harmless rouge powders should be encouraged by every possible means, and surely the resources of chemistry are equal to supplying something that will not poison the men. In France metastannic acid powder has been found to be particularly serviceable. In the glass works at Baccarat it has been used for the last fifteen years with satisfactory results. Since in England the putty powder has been made containing smaller quantities of lead, the number of cases of plumbism has been fewer, but part of this is due to improved methods of polishing, better aspiration, and greater cleanliness on the part of the work people.

DANGER FROM LEAD IN GLASS MANUFACTURE.[a]

A word should perhaps be said here as to methods of handling red lead on account of the injurious effects which the inhalation of lead dust produces upon the workmen exposed to it. For glass-making purposes it is not feasible to adopt the method adopted by potters of first "fritting" the lead and thus rendering it comparatively insoluble and innocuous; even if this were done, the difficulty would only be moved one step further back, and would have to be overcome by those who undertook the preparation of the frit. The proper solution of the problem, in the writer's opinion, is to be found in properly preventing the formation of lead dust, or at all events in protecting the workmen from the risk of inhaling it. Where only small quantities of lead glass are made, and therefore only small quantities of lead are handled and mixed at a time, it is no doubt sufficient to provide the workmen engaged on this task with some efficient form of respirator to be worn during the whole of the time that they are engaged on such work, and to take the further precautions necessary—by way of cleanliness and the provision of proper mess rooms—to avoid any risk of lead dust either directly or indirectly contaminating their food. Where, however, large quantities of flint glass are made every day, it is possible and proper to make more perfect arrangements for the mechanical handling and mixing of the lead with the other ingredients by the provision of suitable mixing and transporting machinery, so arranged as to be dust tight. It is only fair to state, however, that, partly under their own initiative, partly under pressure from the authorities, glass makers in this country [England] are complying with these requirements in an adequate manner.

DISEASES OF GLASS WORKERS IN GERMANY.[b]

Glass is a product of the fusion of silica with two bases (fluxes). Clean white sand, quartz, or flint, all of which contain silica, marble dust, or limestone and soda, Glauber's salt and potash, respectively, serve for raw materials.

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[a] Walter Rosenhain, B. A., B. C. E., Glass Manufacture, 1908, pp. 50 and 51.

[b] Dr. C. F. Schmidt, Die Krankheiten der Glasarbeiter, in Weyl's Handbuch der Arbeiterkrankheiten, 1908, pp. 343-354.

Glass is colored or decolored, and its fusibility, its refractive power, its luster, and its resonance are enhanced by various chemicals. Lead in the form of litharge or the red oxide is made use of in the manufacture of special kinds of glass, as, for example, flint glass for optical purposes, and crystal glass, which is remarkable for its peculiar brilliancy and resonance, and is, for the most part, employed in England and France as mock crystal, and the so-called hard flint glass, from which artificial gems are made. In most varieties of glass no lead is used, and arsenic is employed for oxidizing in the great majority of cases.

The raw materials are usually mixed by the "melters" in open vessels, so that much dust is evolved. The so-called "mixture" is melted in "pots" which are generally open, and are covered only in making flint glass. For this purpose intense heat is requisite. It pours out of the openings of the dome-like arched ovens through which the "glass blowers" take the molten glass with the "pipe."

In the fierce red glare of the glowing fire the unpracticed eye can hardly see at all, and where the blower stands there prevails a temperature of 60° C. [140° F.] and over. On this account the blowers are clad in shirt and trousers only, and are alternately exposed to heat and cool drafts, since even in winter the factory doors stand open. The pipe with which the glass is blown is an iron tube 1½ meters long [about 5 feet]. With the right hand the pipe is held to the mouth and then very swiftly swung around, while the outstretched left arm has to support the pipe, often heavily loaded, and perform the main part of the labor. The strength of a single blower is not sufficient for the manipulation of many articles; consequently the same pipe often passes from mouth to mouth—from two to four workmen using it in turn. Some kinds of glass are made by the process of pouring, in which case burns frequently occur.

As the glass cools, a portion of it is ground or cut to size with diamonds. The edges of some articles have to be smoothed with a coarse round file, and, as a result, clouds of fine particles are set flying about in the air, some of which are unavoidably inhaled by the workmen. In the operation of grinding, a jet of wet sand trickles down upon the moist, revolving grindstone or wheel and the moisture holds fast the bulk of the fine glass motes, but some escape and are taken in with the breath by the grinders who are obliged to keep their heads close to the grindstone, especially when engaged in pattern grinding. Very dense is the dust produced in the process of polishing the ground glass with a rapidly revolving damp brush, because, on account of the sharp friction, both glass and brush quickly become dry. How great the evolution of dust is may best be seen by the deposits on the clothing of the grinders and on all objects in the workroom which are constantly covered with a layer of fine powder.

According to a statistical report of the Glass Trade Association, 77,948 persons belonging to its membership were employed in the year 1905 in 904 establishments.

In two large hollow-glassware factories of Lower Lusatia the morbidity and mortality statistics for the period of three years presented the following figures:

CASES OF SICKNESS, DAYS OF SICKNESS, AND DEATHS AMONG WORKERS IN TWO HOLLOW-GLASSWARE FACTORIES IN GERMANY, 1903 TO 1905.

	1903.	1904.	1905.
Male members	513	521	591
Female members	96	100	124
Cases of sickness:			
Male	219	180	204
Female	34	28	33
Days of sickness:			
Male	2,239	1,679	2,430
Female	538	376	395
Deaths:			
Male	4	2	6
Female	1	2	....

The subjoined figures were furnished at a large plate-glass factory:

CASES OF SICKNESS, DAYS OF SICKNESS, AND DEATHS AMONG WORKERS IN A PLATE-GLASS FACTORY IN GERMANY, 1903 TO 1905.

	1903.	1904.	1905.
Male members	176	175	175
Female members	6	6	5
Cases of sickness:			
Male members	58	84	69
Female members	3	1	1
Days of sickness:			
Male members	816	942	584
Female members	36	18	5
Deaths:			
Male members	1	1	....
Female members	....	1	....

Hence in the hollow-glassware factory the average number of sick days for each man ranged from 3.22 to 4.36 and for each woman from 3.18 to 5.60 days in the year. The number of cases of sickness among the men varied from 34.5 per cent to 42.9 per cent of the male members and among the women from 26.6 per cent to 45.4 per cent of the number of female members.

The number of sick days for each case of illness among the men averaged from 9.3 to 11.9; among the women, 11.9 to 15.8 days.

In the plate-glass factory the sick days per capita among the men numbered 3.3 to 5.3 days in the year; among the women, 1 to 6 days for the same period. The number of cases of sickness among the men fluctuated between 33.5 per cent and 48 per cent of the whole number of male members, and among the women between 16.6 per cent and 50 per cent of the female membership. The average duration of sickness per capita among the men was from 8.4 to 14 days and among the women from 5 to 18 days.

In one of the two hollow-glassware factories mentioned above, in which from 313 to 351 persons were employed, there occurred in the course of a year an average of 5 accidents; in a plate-glass factory with 180 to 181 workmen, 15 to 19 accidents were reported. This disproportionately higher number of accidents in the plate-glass factory is explained by the fact that the workmen in the plate-glass factories have to handle colossal globes of glass, and the danger of an injury is much greater on this account. In the plate-glass factories no grinders are employed, and but very few women, to whom the occupations of cleaning and similar operations especially belong. In the hollow-glassware factories, on the other hand, many grinders are kept busy.

It is remarkable that on the whole there appears to be no essential difference in the number of cases of sickness in the two sorts of establishments. One might naturally expect that the number would be actually greater in the hollow-glassware factories in which many grinders are employed. In general the hygienic conditions are positively worse in the hollow-glassware factories, because many grinders are tuberculous. But this fact is scarcely apparent in the statistics, since the grinders rarely suspend work on account of their chronically advancing tuberculosis, but labor on and on until there comes a day when they are constrained either to change their occupation or become chronic invalids and incapable of work.

On the other hand, in the plate-glass factories in which the glass blowers are obliged to work much harder the number of "colds" is very large.

The number of deaths in the hollow-glassware factories was somewhat greater than in the plate-glass factories, corresponding to the ratio of 1.3 to 1.

In the year 1905, 2,359 accidents were reported in the establishments belonging to the Glass Trade Association. Among 363 accidents which resulted in a reduction of earning capacity for more than 13 weeks, there were observed 124 cases of incised or punctured wounds caused by glass. Fatal burns and blood poisonings in consequence of neglected wounds are not rare. Most frequent are injuries of the arm, especially of the left arm. Of the 363 accidents, 101 affected the left arm and 85 the right arm. Among 305 accidents in the year 1901, 104 injuries of the left arm were observed and 75 of the right arm.

The danger of injury is best illustrated by the fact that in 34, or 53.1 per cent, of the accidents the hazardous nature of the employment itself was the cause of the mishap. Large fragments of glass often cut the soft tissues to the bone, and since the skin is grimy and the clothing foul with dust and perspiration, the wounds easily become infected. The tendons and nerves sometimes suppurate at the points of suture and fail to unite, so that there results a serious disturbance of sensation and motion.

Sometimes, also, there are formed troublesome adhesions of the tendons with their sheaths and with the skin. Injuries to the nerves may especially be overlooked in slight wounds of the skin from glass punctures and incisions, hence in such cases thorough examination of the vessels is indispensable. Especially important is such scrutiny in wounds of the palm of the hand in the proximity of the median and ulnar nerves. By reason of the hard and but slightly sensitive callosities in the palm of the hand, the exploratory examination in the neighborhood of these nerves demands special care. In future the Bier method of prophylactic hyperæmia will be carried out in the treatment of infected wounds. This treatment, begun immediately after stitching of the wound and continued for at least twenty hours daily under gentle constriction of the injured member with a thin rubber bandage, tends to prevent suppuration. Under this treatment, however, the surface wound can not be entirely closed, but must have small openings for drainage.

Many physicians to glass factories are convinced that, apart from the injuries incident to the trade, the irrational mode of life of the glassworkers is largely responsible for the unfavorable rates of morbidity among them. The majority of the glassworkers, particularly the plate-glass makers, earn a relatively very high wage, a net annual income of 3,000 marks ($714), being not at all uncommon for a master plate-glass maker. These large earnings stimulate in the workmen a passion for gambling and dissipation, and it is quite conceivable that the health must suffer when these people who work hard all day deny to their bodies the necessary rest at night.

According to the observations of Shaefer, the diseases among the workmen of two glass factories were classed as follows:

	Per cent.
Disturbance of nutrition	13. 3
Infectious diseases	3. 3
Diseases of the respiratory system	32. 7
Diseases of the digestive system	16. 6
Diseases of the nervous system	3. 8
Diseases of the eyes and ears	3. 3
Diseases of the skin	4. 4
Surgical diseases	6. 1
Injuries	12. 2
All other diseases	3. 8

An examination undertaken by Sommerfeld of the journals of a glassworkers' sick benefit fund gave the following results:

	Per cent.
Infectious diseases	13. 9
Diseases of digestion	13. 5
Rheumatism	6. 4
Eyes	2. 8
Syphilis	. 05
Lead poisoning	6. 4
Diseases of the respiratory system	17. 39

The last were distributed as follows:

	Per cent.
Tuberculosis of the lungs	6. 7
Chronic trachitis	6. 1
Emphysema	1. 03
Pleurisy	1. 3
Pneumonia	2. 26

DIAGNOSIS AND TREATMENT.

As a result of the diversity of occupation among the individual groups of glassworkers, each of these groups suffers from its peculiar occupational diseases. This difference is most evident in the two largest groups, the blowers and the grinders.

The glass blowers are much more favorably situated from a hygienic point of view, although even their vocation is not generally counted among the employments conducive to health. According to the statistics of Anacker, which cover 25 years, the average duration of life among glassworkers as a body was 35.2 years; the glass blowers alone, 38 years; the grinders, 32.6 years; and the remaining workmen, 41 years. Only 8.3 per cent of the grinders and 21.8 per cent of the blowers attained the age of 50 years. Since glass blowing often demands great muscular strength, the stronger-built workmen usually turn to this occupation, while the weaker for the most part become grinders.

As a rule, glass blowers are people of stalwart frame. Some have a pale but many a ruddy complexion, caused by the intense heat. They are generally spare, for they are obliged to undergo great physical exertion, and, in consequence of this exertion and the great heat, they perspire freely. The constant exercise makes the muscular development of the upper part of the body, especially the arms, exceptionally powerful, while they are sometimes observed to be bow-legged on account of continual standing.

While, with other workmen, the right arm is as a rule larger than the left, it is a physiological peculiarity of the glass blowers that the musculature of the left arm is better developed than that of the right, particularly in plate glass makers, who, with the extended left arm, must support and rotate the pipe loaded with the weight of the heavy glass cylinder. By a series of measurements taken by myself of a large number of glass makers (167) it was shown that among 36 plate-glass makers the circumference of the left forearm in 32 cases averaged 0.8 centimeters (three-tenths inch) more than the right, and in 4 cases it was of the same size. The left upper arm was larger in 11 cases, of the same size in 9, and in 16 cases smaller. Among 131 glass blowers of another class (therefore not plate-glass makers) the left forearm was larger than the right in 48 cases, and the left upper arm was larger in 49 cases. In 31 cases the forearms and in 16 cases the upper arms were of the same circumference. In forming a judgment as to accidental injuries to the arms, this fact is of considerable importance.

By the continuous rotation of the hot pipe the skin of the palms of the hands becomes greatly thickened, callous, and horn-like, as one seldom finds it among workmen of other callings. Stein assumes that this formation of callosities is caused, not by mechanical and thermal irritation alone, but that it results from the use by the plate and bottle glass blowers of the so-called lubricant, a mixture of charcoal, pitch, and resin, while handling the pipe. But this hypertrophy of the skin also affects glass blowers who do not use the lubricant. In some localities, as, for example, in many factories of Lusatia, the lubricant is not employed even by the plate and bottle glass makers. In the rough skin, dyed black by deposition of dust and full of punctured pits, there often occur deep erosions which sometimes temporarily unfit the glass blowers for labor. Many blowers complain also of painful sensations in the callosities, especially in the morning when the hands have been at rest. In grasping any object the pains are most distressing. The constant rotation of the iron tube not seldom occasions among the blowers a slight curvature of the fingers at the middle joint. The fourth and fifth fingers are most apt to be affected by it. A contraction of the articular ligaments at the site of the curvature is chiefly responsible for the deformity, to which is then added a slight shortening of the flexor muscle of the finger. Perhaps, also the exuberant growth of callous in the palm contributes to the curvature. One may not rarely see the same condition among other hard-working people whose hands habitually grasp the handle of a spade or similar implement.

The use in common of a single blower's pipe, still practiced in the majority of the plate and hollow glassware factories, makes possible the danger of syphilitic infection. One syphilitic may in this way infect an indefinite number of persons. Since the infection occurs extragenitally, danger of course threatens all relatives of the infected glass blowers. Eysell has described an epidemic in which twelve persons became infected with syphilis by a single blower. The danger for the relatives is all the greater because infections from the pipe are not always outwardly visible on the lips, but often exist deeper in the mouth. Among Eysell's twelve cases the primary affection was found on the lips and at the corner of the mouth in only six; in the remaining cases, on the deeper tissues of the mouth. From a legal point of view a syphilitic infection contracted by the use of the glass blower's pipe is to be regarded as an industrial accident. Of course, by the promiscuous use of a single pipe tuberculosis also might be readily communicated, and undoubtedly in some instances this actually happens. Fortunately, tuberculosis is relatively rare among glass blowers.(a)

The primary syphilitic affection is not to be confounded with the white placques on the mucous membrane of the mouth which are produced by the mechanical irritation of the rotating pipe and which are found especially among the older glass blowers. This mechanical irritation causes a superficial denudation of the epithelium of the mucous membrane of the mouth which is still further macerated by the saliva. Under the continuous irritation hypertrophy and thickening of the epithelium gradually develop, appearing as whitish spots and perhaps leaving visible scars. By the attrition of the pipe the teeth are often ground away more or less, so that, between the rows of teeth when the jaws are closed, there may appear gaping erosions in front. The cheeks by forced distension become very flaccid and flabby. In the act of blowing they are puffed out like a balloon, and from this strong distension there results an atrophy of the muscles of the cheek which, under certain circumstances, may present serious lesions. According to an experiment of Renaud the air pressure in expiration which normally amounts, by the mercurial gauge, to only 6 to 9 millimeters [two-tenths to four-tenths inch] rises in the mouth during the act of blowing to 90 to 110 millimeters [$3\frac{5}{10}$ to $4\frac{3}{10}$ inches] and, under certain conditions, to 150 millimeters [$5\frac{9}{10}$ inches]. In more exceptional cases, on account of the forcible distension of the cheeks and the atrophy of the cheek muscles, air may be forced into the efferent duct of the parotid gland and lead to a considerable enlargement of the caliber of this duct. This change was first fully described by Scheele, and has been designated as "Emphysema of Steno's duct." The enlarged duct may be felt as a pad-like cord which becomes distended with the inflation of the cheeks. By palpation a distinct crepitation may be elicited, as in subcutaneous emphysema. This disease, which is by no means rare, was very fully described by Scheier. It has been observed in young blowers after having worked from six months to two years at the trade.

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[a] Compare statistics for Glass Bottle Blowers Association, 1892 to 1908, page 245.

While eating, air sometimes enters the dilated duct, and ulcerations may occur in the passage, but they generally heal spontaneously. Baart de la Faille has described a rupture of Steno's duct occurring during convalesence from an attack of "mumps." The rupture took place suddenly in the act of blowing. It was accompanied by a sharp crack and followed by extensive cutaneous emphysema about the neck.

In cases where the dilation of Steno's duct incapacitates one for labor, the employment of the compress made by Eckstein at Scheier's suggestion is to be recommended. This closes the ducts by pressure.

As glass blowers are forced to work in an atmosphere of a high temperature and are constantly exposed to the cool draft which rushes in through the open door of the factory, they are predisposed to colds. On one hand there are rheumatic inflammations, on the other catarrhal diseases of the bronchial tubes and of the lungs from which they suffer. Smoke often tends to produce bronchial catarrah, especially in the older factories where it is occasionally driven by unfavorable winds, directly from the openings of the furnaces, all through the factory. Since acute catarrhs of the larynx and bronchial tubes are often repeated, chronic bronchitis occasionally supervenes, from which pulmonary tuberculosis sometimes results.

The intense heat radiation provokes severe headaches in some blowers, especially in summer. These are caused by congestion of the brain and its meninges.

It was formerly believed that glass blowers often contracted emphysema of the lungs, and theoretically this seemed quite probable, since they are obliged continually to inhale a great volume of air and then by forced expiration to drive it out through the contracted glottis, by which means great demands are made upon the elasticity of the lungs. This opinion was refuted by Prettin and Leibkind. They examined 230 blowers from different glass factories who had followed this occupation for at least ten years. Two hundred and eighteen of them were from 25 to 50 years of age, and 12 were from 51 to 62. One hundred and two had been blowing glass more than 10 years, and an equal number more than 20 years. Among the blowers under 40 years of age, practically no emphysema was found. Of 54 blowers from 40 to 50 years old only 2 had emphysema in a slight degree. Among the 12 oldest, there were but 3 cases of severe emphysema of the lungs. Of the 230 blowers, therefore, only 5 in all had emphysema, and even with these it was doubtful whether the emphysema was superinduced by the blowing or by other diseases of the lungs. But it was demonstrated by spirometric tests that the vital capacity of glass blowers' lungs is very large, for the spirometer indicated an average amounting to 3,350 cubic centimeters [183.25 cubic inches].

Since similar observations have been made among army musicians, one must adopt the view that by degrees the respiratory apparatus adapts itself to, and acquires a tolerance of, the practice of blowing, and the elasticity of the lungs is increased. My own experience confirms the opinion expressed concerning the rarity of emphysema, for even the old blowers seldom complain of emphysematous symptoms, such as shortness of the breath and the like.

Through constant exposure to the intense heat and the simultaneous ingestion of large quantities of fluids, for example, 6 to 8 or even

10 liters of water daily [6 quarts+to 10 quarts+] the digestion of glass blowers often suffers, so that chronic disturbances, especially gastric catarrhs, are quite frequent.

The extreme heat often has, also, an injurious effect on the eyes. One result of the heat and of the draft together is to produce chronic catarrhal conjunctivitis. The heat alone often leads to xerosis [dryness and atrophy] of the conjunctiva.

Evetzky found among 70 youthful blowers 31 cases of xerosis near the cornea. Of weighty significance is the effect of the heat upon the lens. It often causes the so-called glass blowers' cataract. Meyhoefer found among 506 glass makers 59 opacities of the lens, though 42 of these blowers had not reached the age of 40 years.

The obscuration begins in the posterior fibers and extends slowly outward. If the visual strength has declined by about one-tenth, complete opacity results within a few months. Hirschberg assumes that the delicate internal parts of the lens suffer structual changes from the absorption of heat, and that these changes finally lead to the opacity. Other authors attribute as an influence the loss of fluids due to perspiration. The results of operations for glass blowers' cataract are on the whole very good.

In the foreground among all diseases of the glass grinders stands the damage to the lungs by glass dust. This glass dust produces its effect by the mechanical irritation of the fine, sharp-angled and needle-pointed particles of glass. The dust particles may at length find their way into the lymph-current and be deposited in the lungs and bronchial glands. Meinel, for example, found in the lungs of a glass blower a silicious content of 30.7 per cent. Soon there supervenes a chronic catarrh of the larger bronchial tubes and bronchioles, the desquamated and inflamed mucous membrane of which finally afford a congenial soil for colonies of tubercle bacilli. Tuberculosis of the lungs makes early victims of a large proportion of the glass grinders. This is readily explicable, because, even as apprentices, they are exposed to the glass dust.

The grinders as a rule remain at their work until severe illness compels them to give it up. The older workmen are well aware of the danger of their occupation, but a certain indifference and a relatively large income hold them steadily to the hazardous work. In the effort to work as rapidly as possible they often neglect the simplest precautions, not even removing the glass dust quickly and thoroughly. Disregard of personal hygiene contributes to the extension of tuberculosis. From the untidiness of the workroom and of the dwelling the tuberculous grinder, by means of his tubercular expectoration, finally endangers his fellow-workmen and his family. Grinding is especially dangerous to such young grinders as are hereditarily infected with tuberculosis. Since the sons commonly follow the occupation of the fathers, this unfortunate coincidence is not exceptional. It is significant that in the glass-grinding shops the few grinders that are near 50 years of age or over are always pointed out by their fellow-workmen as special exceptions to the general rule. As already stated, the average age of the grinders, according to Anacker's statistics, is 32.6 years. According to Hirt's figures, the grinders who had taken up this employment in their twentieth year or later attained the average age of 42.5 years. Hence, therefore, grinding injures older people as seriously as the young. Of course, early tuberculosis soon has the effect of weakening the whole system. The majority of grinders look pale and weak.

As a characteristic lesion one sometimes sees among the glass grinders a bursal abscess at the middle of the inner side of the forearm. This arises from the grinder's habit of supporting his arms on a wooden prop. Between the hooked process of the humerus and the inner condyle near the elbow, and at the tip of the process itself, similar bursal abscesses, due to pressure, have occasionally been observed Chronic inflammation of the sheaths of the tendons also is produced by the severe strain upon the forearm.

Working in water foul with sand and glass dust brings on chronic inflammation of the skin, specifically, water itch.

A disease of the fingers is described by Anacker which arises from the attrition of the glass dust and fine sand between the fingers, where it causes an inflammation that may at its onset unfit the grinder for work. Blebs arise, like those of pemphygus, which burst and leave sore spots on the skin. Occasionally, after slow healing, thick scars remain, and in severe cases the affection may extend to the palm of the hand.

When glass is treated with fluoric acid [as in acid etching] the workmen may suffer erosions of the skin, and contract catarrhal bronchitis by inhaling the fumes of the acid.

Instances of metallic poisoning as a rule play but a subordinate part in the glass industry, because the workmen seldom come into direct contact, for example, even with lead. When lead poisoning occurs it may generally be traced to the use in an unauthorized way of material containing lead. A physician to a glass factory of Lusatia recently informed me that in a certain glass factory he had observed numerous cases of lead poisoning among the girls. The girls were employed at the process, so called, of "powdering" glassware. After energetic protests on the part of the physician before the management of the factory the poisonings altogether ceased.

In the manufacture of thermometers, and the like, mercurial poisoning may occur if the filling of the instrument is done in rooms which are too warm, making possible the vaporization of the mercury.

Poisoning with arsenic is relatively very rare, though this metal is used in large quantities in the process of glass manufacture.

Of much greater importance are the injuries incident to glass manufacture, but hitherto they have received no attention, or very little, in the literature of the subject, although they are of frequent occurrence in this industry. Almost all groups of workmen are exposed to the danger of an injury in handling glass. Not infrequently large glass cylinders burst and fall on the arms of the glass makers, and in the process of grinding also injuries very often happen.

The muscular weakness resulting from injuries to the arm must be appraised in a special manner among the glass blowers, above all in the case of plate-glass blowers, because the left arm, through greater development of its muscles, is stronger than the right, as a rule, or at least just as strong, while with right-handed workmen in general the reverse is true, for with them the left arm is commonly 1 centimeter [nearly two-fifths inch] less in circumference than the right. If a glass blower's left arm after an injury is 1 centimeter [two-fifths inch nearly] smaller a weakness of the muscles must be admitted as a rule. On the other hand, a smaller circumference of the right arm would not of itself and without other evidence imply the existence of muscular weakness in glass blowers.

The injury to health inherent in the nature of the occupation is less in the optical industry. The inhalation of glass dust is the principal thing demanding attention, but the evolution of dust is relatively insignificant.

PREVENTION.

For a long time efforts have been made to abolish, or at least reduce to a minimum, the conditions prejudicial to health in the glass industry. Unfortunately, the introduction of proper regulations often encounters technical difficulties, or suffers defeat from the negligence and imprudence of the workmen, and, in fact, we find even now in large establishments, otherwise well equipped with modern appliances, few provisions for safety and protection, or perhaps none at all.

The mixing of the raw materials should be done in covered vessels in order to avoid the diffusion of dust, but it often takes place in open boxes. At least the workmen should wear cloths covering the nose and mouth.

Since it has been demonstrated that pulmonary emphysema is not due to blowing, except in very rare instances, the necessity for a mechanical blower no longer appears so urgently requisite as it was formerly assumed to be. An apparatus has been invented by means of which glass masses are blown into shapes required by compressed air. By the use of this contrivance not only might the need of strenuous exertion in blowing be obviated, but the danger of syphilitic infection and of the transmission of tuberculosis might also be removed. But in most of the factories the pipe continues to be used, because, it is claimed, the inflation by this method is more uniform. The transmission of syphilis may be prevented by a simple device, namely, by the use of an individual mouthpiece for every blower. But this measure is opposed by the blowers because by its employment they are hindered in their work. Regular examinations are also recommended, but the workmen rebel against such inquisitorial regulations.

The attempt has been made to reduce the intense heat radiation by placing asbestos-coated iron curtains in front of the ovens. These curtains are raised by a lever so arranged as to be automatically set in motion by the weight of the workman's body. For lowering the temperature revolving fans have also been installed in proximity to the working place. These create an artificial breeze to cool the workmen.

Blue or gray panes of glass placed before the openings of the furnace serve as a protection for the eyes.

Closets should be provided in the immediate vicinity of the furnace room and have a direct approach from it, so that in winter the workmen may not take cold in passing to and fro across the yard.

The prevention of dust presents the greatest difficulties, though a large part of it is held captive by means of water. In polishing with the sand blast the sand is so drawn up by the agency of a suction appliance devised by Gutmann that no dust can escape. The dangerous explosions of lamp cylinders are now prevented in a glass factory at Weisswasser by a mechanical apparatus by which the cylinder is heated in a narrow zone throughout its entire circumference, and then by a light blow with a sharp instrument it is cracked off.

But in the grinding department even the simplest protective arrangements are often wanting, or are not employed because the work is retarded by them.

Above all, sufficient ventilation should be provided for, and a scrupulous daily cleansing of the grinding rooms. In every room, too, there should be an adequate supply of cuspidors.

By systematic instruction of the grinders the danger of tubercular infection may be minimized.

Personal hygiene would be promoted by the installation of bath rooms in the factories; and, in addition, good drinking water should be supplied.

The employment of young men and young women in the glass factories and grinding rooms has been regulated by a proclamation of the imperial chancellor dated March 5, 1902. By this proclamation the employment of women and of young men is forbidden in rooms where raw materials are mixed, or where "cullet" is broken up, or hydrofluoric acid is used. Before the ovens or in rooms where a high temperature prevails boys under 14 years and females in general are not to be employed. Furthermore directions are given, and to be executed, concerning the time shift of young workmen before the ovens, according to the character of their occupation. For the rest, young workmen may be employed only when a certificate is furnished by a physician authorized by one of the higher administrative officers to issue such certificates, stating that the physical condition of the workman is such as will admit of his employment without incurring danger to his health. The presumption justifying this action is that the physician has some acquaintance with the nature of the occupation and is able to judge of its effect upon the health.

According to the decision of the Glass Trade Association of the plate glass industry, the flatteners, the annealers, and the scrubbers of the flattening rooms and the glass cutters and sorters in the warehouse must wear shields of leather or some other suitable material to protect the wrist in order to avoid injuries.

DANGERS OF GLASS MANUFACTURE IN AUSTRIA. (a)

Glass furnaces are of two kinds, pot and tank furnaces. The walls of the latter should not be too thin, else they will radiate intense heat, and as the workmen standing before the openings suffer greatly from the heat and glare they should use dark eyeglasses. The face, when in the act of placing the pipe into the pot or tank, is protected by framed glass plates. These plates are held before the face by the teeth by means of a peg attached to each plate. When not in use, they are suspended by a string upon the breasts of the workmen. These plates are very popular, especially with beginners.

Glass plates are also placed before the openings and may be moved either sideways or upward, by means of foot pressure, whenever necessary. Fire-clay doors and asbestos shields are also used successfully. There should be first-class ventilation free from draft to cool

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[a] Handbuch der praktischen Hygiene und Unfallverhütung in Industrie, Gewerbe und Bergbau, by Viktor Steiner. Vienna. 1908.

the places where the workmen stand (high ceilings and large, entirely open windows controlled from below.) Contrivances, by means of which air is blown perpendicularly upward or downward, all around the furnaces have also been successful. The water in the glassworkers' troughs should be changed daily. The crane at the drum oven of plate-glass works should be supplied with a fireproof (not wood) heat-preventing shield.

Barrows should be used to carry off the cylinders. In bottle factories the introduction of mechanical contrivances for carrying off the ware, meets with favor, as they take the place in part of the youthful workers, who frequently are difficult to obtain.

For pipes which are temporarily out of use, revolving stands, which lighten the work and increase the speed, should be used more generally.

Cooling and tempering ovens, or leers fired by gas, should have ventilators or be supplied with stop valves to regulate the supply of gas rather than removable caps. The flues, where the color-mixing drum is used, should be arranged so as to reach out of the top of the factory roof, unless connection can be made with a chimney, or downward into the oven draft. The generators should be sufficiently large to prevent the flames from flaring back, and when worked without blowers should be laid deep. The stirring pits should, if possible, not be built over—at most only lightly—roofed in, and well ventilated. The base-draft blowers are very popular.

The space under the roaster should be provided with a shallow trough with running water or be connected with a chimney having a slide in it, which slide may be operated by the stoker from his regular place of work, and thus the heat and dust caused by the stirring may be lessened. In the first case, carts with perforated bottoms are recommended; also ash hoists, as the ashes are very heavy.

Some apparatus which would draw off the escaping gases at the time of filling or taking them off into a chimney should be placed over the openings. If such are not to be had, care should be taken to prevent the gases from blowing into the works. The gas conduit should have, in front of the oven, a stop-valve branch connecting with the chimney; for otherwise at the firing or burning out of the generator the furnace room will be filled with dense smoke, and flare-backs and factory fires may result. It is recommended that any flue holes in the generator arch be closed with smoke-tight fastenings. These fastenings are in the shape of balls, in which are square holes. The poker is placed through these holes. After stirring, the poker is removed and the balls are turned so as to close the openings. Another system is by means of a cover which can be pushed aside, and by the act of pushing the gas is automatically forced back by a current of steam. Each generator must have a safety valve to prevent explosions. Floating indicators are occasionally used to show when refilling is necessary.

If arsenic is used in the mixture, the greatest care must be exercised in cleaning the ash flues (respirators, wetting the ashes). The large works especially should make provisions to prevent the arsenic from getting into the air, as thereby fields and meadows (especially the latter) may become poisonous to grazing cattle.

The erection of glassworks in settled communities is advisable only under the most stringent regulations, as the gas fumes, etc., may become the basis of complaints.

In the pot and mold rooms, the culling and packing departments, and in the wood-turning shops, of the fire-clay industries, strict protective regulations must be observed. Where straw is handled (in the packing room), special precautions for the prevention of fires are requisite. * * *

In cutting glass in plate-glass factories, the arteries should be protected with leather cuffs, unless it is preferred to give the workmen entire suits for protection.

The grinding of mirror glass is harmless, yet if the red oxide of lead enters as an ingredient of the polishing powder, the protective measures against lead poisoning adopted in the manufacture of clay pipes are to be observed.

When dry polishing is done, the dust should be removed by suction. The plating of mirrors with quicksilver amalgam is practically no longer done, therefore it is here passed by. Substantially the same measures should be followed as in the case of quicksilver workers. The eyes should be protected from the spray of nitrate of silver, and when practicable the hands should be protected by the use of rubber gloves.

Hollow ware must frequently be freed from its attachment by breaking off the so-called cap. A protection shield, with a dust-suction apparatus, should be provided. In the absence of mechanical power, dust catchers and protection hoods should be provided.

A dust-free fracturing apparatus, operated by a thin flame or jet, may be used when bulky ware is being worked. This apparatus should be placed in a separate well-ventilated place, as it is rarely odorless. In regard to the use of benzine and spirits, the measures referred to in another place should be observed.

The broken-off edges are either, first, to be rounded off by melting, in which case the workmen should wear dark eyeglasses or look through dark-glass shields; or, second, they should be scraped off and then ground. The scraping should be done over a box having suction attachments.

When grinding, the necessary measures for wet working should be followed. The floors should be tight and sloping to allow drainage and prevent odors, and warm platforms should be provided upon which the workmen may stand.

The sand washeries should not, as is often the case, be placed out of doors. They should have drainage canals. Dry polishing plates and revolving brushes should have attachments to carry off the dust, and to make room for the ware tables and baskets the aisles should be wide to prevent overcrowding.

Sand blasts should have either dust-proof suction arrangements or the workmen should be provided with helmets for protection, with air pressure or breathing attachments. It would be an advantage if the escape pipe were placed in a separate room.

At present blasts are used which throw the sand against the glass by means of suction only, thus resulting in a downward pressure and preventing dust.

Sand blasts which are not operated by compressed air, but which use steam, do not produce much dust, as the dust becomes moist and falls.

In the acid etching rooms the measures herein mentioned for wet grinding should also be observed. The rooms should be separated from the other departments (asphalt painting, printing, petroleum washing). The etching troughs should be built in good drawing digestors. The workmen should use rubber gloves that reach to the shoulders, wooden tongs, protective eyeglasses, and rubber aprons.

Appliances should be introduced for emptying the acid vessels. When salts which do not contain acids are used, the vessels need merely to be placed in some well-ventilated place.

When washing off the asphalt or caoutchouc paint, methods are to be used which will avoid, as much as possible, soiling the hands with turpentine, petroleum, naphtha, etc., (resulting in nervous disturbances.)

Exclusive of acid etching, no special protection is necessary in the engraving branch.

The manufacture of glazing and enameling is a branch of the glass industry, although other materials are used. Yet, when lead is used, the same rules should govern.

When sifting and mixing, dust-proof apparatus such as the drum sieve, sieve box, etc., should be used.

When metallic oxides are dissolved in acids, the solution and vaporization should be done in digesters.

Poisons are to be handled with the necessary precaution. When colors are rubbed up with turpentine and then dried in the so-called drag mills, the drying space in the oven must have no chinks communicating with the smoke flues. Out of this space there must be a pipe leading into a chimney from which no flareback is to be feared.

DISEASES OF GLASS WORKERS.(a)

Glass making is a trade in which exposure of the workers to great heat is the most prominent feature; and a general notice of it may therefore with propriety appear in this chapter on heat as a cause of disease.

The most numerous body of artisans occupied in glass making are the "blowers." They work immediately around the open-mouth furnaces, and close to the pots of molten glass, from which they take supply for blowing. Consequently they are exposed to intense heat and light. When they have taken up sufficient molten glass on the end of their rods or blowpipes, they recede a short distance from the center of heat; but are still within its influence which, too, is augumented by the mass of viscid glass they are operating upon. Besides, from time to time they have to approach the furnace mouths very closely, to reheat the article they are engaged in blowing and shaping.

Glass casting involves similar exposure, but without the exertion of blowing. Indeed, Mr. Ashley has patented a most ingenious and effective machine for manufacturing glass bottles and tumblers, which altogether dispenses with blowing, and also lessens the duration and degree of exposure to the heated "metal" attendant on the old plan of casting those articles.

(a) J. T. Arlidge, Diseases of Occupations, pp. 531–536.

The casting of plate glass in large sheets is a special department of the trade, in which the outpouring and spreading of the molten glass and its subsequent rolling on the metallic table subjects the workmen for the time to intense heat.

The glass blower has an assistant and also one or two lads, who detach the duly shaped article from the rod and carry it to the annealing furnace. Moreover, besides blowers there is another description of workmen known as "founders," who are concerned with the production and heating of the materials to form the glass. Along with these workmen may be classed the "mixers," who mingle the ingredients of glass, and who, if they escape the evils of great heat, run the risk of injury from the dust of the materials used—sand, carbonate of lime, or mountain limestone, soda-ash, arsenic, and lead. The danger from the last is most to be feared. The arsenic, doubtless, is quickly vaporized by the heat, and has not been proved to be obnoxious to the blowers and casters, although a careless mixer might readily suffer from it whilst in the shape of powder.

The heat is generated by coal fires attached to each furnace; or otherwise by gas mixed with air acting upon a large mass of the crude materials in a vaulted furnace chamber. The use of gas dispenses with most of the smoke and dust that beset glass works, and in equal measure diminishes the evils of the trade.

The mixing of the sand with other components is usually done in sheds and by the simple aid of shovels, just as men would mix the materials of mortar; but recently a special mixing machine has been brought into use.

In the case of the workers in a glass factory, the cognizable disease factors are: Excessive heat and profuse sweating, with more or less smoke and dust; the presence of poisonous dust in the mixing materials, the effort of blowing, and exposure to varied temperatures.

The great heat and sweating necessarily induce painful thirst, to allay which the workmen drink largely. Formerly beer was the fluid most consumed; but, at the present day, it is water or herb beer, experience having taught the men that beer rendered their labor more fatiguing, induced serious liver diseases, destroyed appetite, and was largely accountable for the heavy mortality among them, and that, too, at a very early age.

Unhappily, this temperance at work is not observed when work is over; then, too often, the love of strong drink gains the mastery, and by acting in conjunction with other habits of dissipation and shortened hours for rest and sleep, produces a high rate of mortality at early ages. Whence it happens that the employees met with at glass works are young, and for the most part, when still under 40 years of age, are pale and sallow and thin, and look prematurely old and worn out.

But their more distinctive maladies are those of the respiratory organs—bronchitis, dyspnœa, emphysema, and secondary heart disease, with dropsy and liver disorders, and rheumatism. The act of glass blowing will account for emphysema. The expiration required is very forcible, and necessarily repeated at brief intervals throughout the day, whence it is that a considerable strain on the air cells is incurred, and therewith more or less interruption to the circulation, both through the lungs and heart. The interruption of the circulation is displayed by the suffusion of the face in the act of blowing; while the strength of the blast demanded is exhibited by the thin flaccid buccal muscles, which, from overuse and loss of power, bulge out like an inflated bladder. Indeed, I was assured that they sometimes in old hands actually rupture.

Now and then lads who commence as blowers suffer hæmoptysis from the exertion, and soon grow asthmatic. Indeed, glass blowing is a division of labor only suitable to robust men with good chests; others not so fitted break down speedily. When children of 10 or 12 years of age were put to the work, they became stunted in growth, the knee and ankle joints weakened, and ultimately deformed.

The iron blowpipes are of considerable weight, and by their frequent handling, especially when more or less heated, as they commonly are, they cause whitlows, and horny thickenings on the inside of the hands, which become at the same time expanded and thick.

The heated and rarefied air of the glass house necessarily occasions strong drafts of cold air, from without which, by impinging upon the scantily clothed men, bathed in perspiration, frequently set up colds, passing into inflammatory lesions of the thorax or into rheumatism of some form.

It has been already remarked that the injurious business of blowing may, in the making of much hollow ware, be dispensed with by the adoption of machinery; and Mr. Ashley's invention, besides saving the lungs of glass makers, renders another service to them of no mean importance. According to the prevailing practice, the man who dips his rod into the molten metal proceeds to blow it into a hollow pear-shaped body, and this done, hands the rod with the attached heated glass to his mate, who proceeds to blow it into a large globular figure, and then by rapid rotation and whirling, and some minor acts, gets the required shape and thickness. This passage of the rod from one mouth to another has been the means of conveying syphilis from an infected workman to another. This serious evil finds no place where Ashley's patent is adopted.

As in other occupations accompanied by great heat, the workmen suffer with headache, giddiness, great prostration, and occasional faintness. The complexion is usually pallid and unhealthy looking, and the entire aspect one of languor and feebleness, especially where the business has been entered upon in early youth. Owing to the last-mentioned circumstance, moreover, the legs are feebly developed, the ankles and knees weak, yielding under the weight of the body, and growing deformed.

There are several subsidiary departments of the glass manufacture in which other elements of disease take the place of heat. Such are illustrated in the processes of flatting, frosting, grinding and polishing, cutting and engraving.

The business of flatters is to grind level and smooth the bottom of tumblers and other table glass; an operation done on a horizontally rotating grindstone with the aid of water and sand. Frosting is done by filing, or by means of a bar of glass with sand; and, fortunately, is a wet process. Sand and water, again, are used in grinding and polishing plate glass; operations performed by machinery, on a revolving table or bench, on which the glass is placed, whilst a massive iron "runner" travels over the surface of the glass. Polishing is done after the completion of the grinding, mostly with the aid of rouge, and is a dusty operation. There is also a process called "smoothing," in which hand power is used to work the face of one piece of plate glass upon another, with an intervening layer of fine emery powder and water.

In grinding and smoothing plate glass the free use of water leads to much wetting of the clothes; and consequently to liability to taking cold and rheumatism. Smoothing is done by women, and is heavy work where large plates are dealt with.

Cutting and engraving on glass are artistic operations, performed by small, fine-edged wheels, rapidly rotated, and having their action assisted by emery and putty powder. As the latter is a compound of lead and tin, calcined and then reduced to fine powder the evils of plumbism, constipation, colic, and paralysis are introduced into the business. To what extent lead poisoning may occur, is dependent upon the sanitary construction and ventilation of the shop, the presence or absence of a fan to withdraw the dust, and the amount of care the artisans take of themselves by wearing respirators, and by general attention to cleanliness.

Besides the cutting wheels, brushes are in use, but are specially objectionable on account of the dust they detach and diffuse through the air. The putty powder is likewise employed in polishing flint glass.

Glass cutting has the further disadvantage of being a sedentary occupation, requiring a stooping posture; and, to add to its evils, the workshops are commonly kept highly heated. Hence it is not surprising to read that few of these artificers live beyond their fiftieth year.

Glass is frequently tinted by metallic oxides; those most commonly resorted to are the oxides of manganese, copper, cobalt, and gold. The depth of tint is largely regulated by the degree of heat the coloring materials are subjected to. Carbon is used for cheap black and amber bottles.

One other point may be mentioned here in connection with glass making; viz, the exposure of the eyes to vivid light, which, as elsewhere seen, is a source of disease. To escape its effects, no means are used by the makers. Colored glasses relieve the glare, but, if inserted in metal frames, these get so heated as to burn the skin; and if suspended by nonmetallic cord, the evaporation from the skin bedews the glasses and frustrates their utility.

PART II.—THE WORK OF WOMEN AND GIRLS IN THE INDUSTRY.

CHAPTER X.

NUMBER OF WOMEN AND GIRLS EMPLOYED.

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NUMBER OF WOMEN AND GIRLS EMPLOYED.

INTRODUCTION.

It has been pointed out (p. 21) that the most convenient method of presenting the information of this report was to observe the departmental division of the glass factory into the furnace room on the one hand, and, on the other, the finishing room and the so-called "leer room," these latter two rooms being conveniently grouped for most purposes under the general term "finishing department." The importance of the distinction is, to repeat, twofold: In the first place the furnace room is the peculiar possession of the glass industry. Its whole atmosphere is different from that of other factories, and is also different from that of the other departments of the glass factory itself. In the second place, the furnace room employs practically all the boys in the industry and almost no women or girls, whereas the finishing and leer rooms employ practically all the women and girls in the industry and almost no boys.

Accepting this distinction, Part I has been devoted to the furnace room as representative of the boy-labor aspect of the glass industry. Part II will be devoted to the finishing and leer rooms as representative of the woman and girl aspect of the industry. In considering the furnace room the few women there found were treated, and properly so, merely as substitutes for boy labor and not as a normal part of the furnace room, which is essentially masculine. In the same way, in now considering the other departments, the presence of a few boys will be entirely neglected except in the tabular presentation of numbers.

The terms "leer room" and "finishing room" will be here used with the meanings commonly attributed to them in the trade, although the trade nomenclature is too uncertain to render any such terms of universal meaning. The "leer room" is that section of the factory back of the annealing leer in which the operation known as taking off the leer is performed, and usually also certain of the other rougher occupations, such as the sorting and packing of bottles and the neck grinding of fruit jars. The leer room is almost always a structural part of the same building which houses the furnace room, but in nearly all those conditions which affect the worker the two rooms are quite distinct. The "finishing room," on the other hand, is usually a separate building of an ordinary factory type, in which the after-decorative operations are performed on shades, tumblers, and other of the finer grade decorated articles.

Thus while the leer room and finishing room are by no means the same in location or in appearance, their differences are slight when both are contrasted with the furnace room. In discussing occupations and working surroundings it will be necessary to regard separately the leer room and the finishing room, but in treating of more general matters, such as wages, hours of labor, sanitary conditions, etc., no such separation will be necessary.

EARLY EMPLOYMENT OF WOMEN AND GIRLS IN THE INDUSTRY.

Details are extremely meager in all the references to early glass making in the United States, and this is particularly true in regard to the employment of women in the industry. The industry itself can be traced back to the Jamestown settlement of 1607, when seven men started a glass factory in the wilderness and were massacred by the Indians. During the colonial period glass making continued with varying degrees of prosperity, but it was not until recent years, the past half century indeed, that it tended to spread itself widely through the country. From the very first it may be assumed that young boys were employed in the industry. But that women were so employed can not be so assumed, and it is improbable that they were at an early period. The first definite statement of such employment is in the report of manufacture for 1832 by the Secretary of the Treasury.

In this report it is shown that the Boston and Sandwich Glass Company, with a factory at Sandwich, Mass., was employing women. The company had been organized in 1825, and was engaged in the manufacture of flint and lead glassware, cut glass, etc. In 1832 their working force consisted of 136 men, 46 boys, and 5 women. The women were engaged at "painting glass," an occupation which was probably quite the same as the modern painting or color decoration of fancy lamp shades, etc. The wage of these women was $1.20 per day, this relatively high wage indicating that their work was regarded as highly skilled. Boys employed in the same factory were receiving 50 cents a day. This same report gives another Massachusetts glass factory, established in 1827, as employing 40 men, 12 boys, and 11 women. This factory was engaged in the manufacture of bottles, jars, and demijohns, and the women were employed at the work of demijohn covering. Their wage was 60 cents a day. The wage of the boys was 50 cents a day.

In the available references after 1832 covering demijohns is the only work definitely referred to as being done by women down to and including 1847, when "nearly a dozen women" were covering demijohns in a factory in Pittsburg, Pa. In 1845 the wages of "women and girls" in this district were given as 45 cents a day, "boys" 55 cents a day. The census of 1850 shows but 97 women employed in the whole glass industry, including building glass as well as bottles, jars, tableware, etc. As there were but 94 establishments in existence at the time there was thus on the average little more than one woman to an establishment.

The following table, prepared from the reports of the census for 1905, shows the growth in the employment of women in the industry as related to the number of establishments and total number of wage-earners employed therein. This table includes all branches of the glass industry, and not merely those branches which were covered by this investigation. The separation of the several branches can not be clearly made prior to 1880, but since the census of that year the employment of women may be specifically related to the branches of the industry considered in this report, and this will be done in the text.

NUMBER AND PER CENT OF INCREASE OF ESTABLISHMENTS, AND OF MEN, WOMEN, AND CHILDREN EMPLOYED IN THE GLASS INDUSTRY, 1850 TO 1905.

NUMBER.

	1850.	1860.	1870.	1880.	1890.	1900.	1905.
Establishments	94	112	201	169	294	355	399
Wage-earners, average number	5,668	9,016	15,822	24,177	44,892	52,818	63,969
Men, 16 years and over	[a] 5,571	[a] 8,765	11,505	17,778	36,064	42,173	54,079
Women, 16 years and over	[b] 97	[b] 251	715	741	1,885	3,529	3,455
Children under 16 years	(c)	(c)	3,602	5,658	6,943	7,116	6,435

PER CENT OF INCREASE.

	1850.	1860.	1870.	1880.	1890.	1900.	1905.
Establishments	....	19.1	79.5	[d] 15.9	74.0	20.7	12.4
Wage-earners, average number	....	59.1	75.5	52.8	85.7	17.7	21.1
Men, 16 years and over	....	[a] 57.3	(e)	54.5	102.9	16.9	28.2
Women, 16 years and over	....	[b] 158.8	(e)	3.6	154.4	87.2	[d] 2.1
Children under 16 years	....	(c)	(c)	57.1	22.7	2.5	[d] 9.6

[a] Including boys under 16 years.
[b] Including girls under 16 years.
[c] Not reported separately.
[d] Decrease.
[e] Not reported, as children were included in 1860 but not in 1870.

From this table it will be seen that following 1850 there was a sudden and marked increase not only in the number of women employed, but also in the proportion of women relative to the men. Thus, while the increase of men during the decade was 59.1 per cent, that of women was 158.8 per cent. This decade marked the beginning of the expansion of the industry, not so much in the number of establishments, which increased but 19.1 per cent, as in the size and importance of existing plants, as shown by an increase in the number of employees of 59.1 per cent. The expansion was particularly marked in the manufacture of tableware, a branch of the industry which employs women to a much larger extent than does the manufacture of bottles and jars. The total number of women employed in 1860 was, however, still small (only 251), and a large number of these were engaged at demijohn covering.

During the next decade, 1860 to 1870, there was a large increase in the number of establishments—an increase excited by the prosperity of those already in existence. The number of establishments increased 79.5 per cent, the number of employees 75.5 per cent, and the number of women almost tripled.

Between 1870 and 1880 the number of factories in operation decreased considerably, but those remaining tended to grow in size, as is shown by the increase of 52.8 per cent in the total number of employees. The number of women, however, remained almost stationary, although, as a result of a strike, women and girls gained some foothold in the cut-glass establishments of Connecticut. On the whole, however, the growth in the average size of establishments was not in those branches of the industry which employed women in any considerable numbers, and thus there was not the same incentive toward the increased employment of women during this decade as there had been during the previous one. The period, indeed, was one of extreme industrial depression, which in the glass industry manifested itself in closed factories and an increase in child labor rather than in the labor of women. The increase of women's work between 1860 and 1870 had resulted from experiments growing out of rapid expansion of some branches of the industry. During the decade from 1870 to 1880 there was little expansion and no inducement to try a new class of help, especially when, owing to the financial stress, children could be had without difficulty. Sand blasting was invented during this period, but there is no record of women having been put at this work until much later.

The Massachusetts Bureau of Statistics of Labor in its report for 1871 (pp. 306–307) refers to two establishments making lamps, tableware, cut glass, etc., each employing women or girls. Of one of these, having a total of 150 employees, it says: "Thirteen girls, employed at cleaning molds, papering ware, and cementing lamps, receive from 83 to 67 cents" per day of ten hours. Of another plant it is said: "Girls select, burnish, rough, and gild. Much family labor is employed, one family having 7 in the works." The Massachusetts Census for 1875 (vol. 11, p. 474) shows that 1,291 persons were employed in the industry in that State. Of these 1,144 were males over 15 years of age, 64 males from 10 to 15 years old, and 83 women, of whom 3 were married.

The next decade, from 1880 to 1890, was one of renewed prosperity and expansion. The natural-gas discoveries and the offers of free gas, free land, and exemption from taxes for a period of years greatly, and to some extent unhealthily, stimulated the building of factories in the gas belt. While the cooperative movement which so greatly increased the number of window-glass factories was not so marked in the other branches of the industry all branches shared in the stimulus. The number of establishments increased 74 per cent, and the fact that the total number of employees increased 85.7 per cent would indicate a slight tendency toward larger plants. The number of women showed a marked increase, from 741 to 1,885, or 154.4 per cent. These figures, it is to be remembered, include all branches of the glass industry, but a further examination of the census shows that 1,818 of these 1,885 women were employed in the branches covered by this report. Most of the remaining 67 were employed as polishers in plate-glass factories.

In 1883 a New Jersey plant had 54 women, 14 of whom were in the "lamp" department. A Newark concern making watch crystals employed 14 women. By 1886 women are found engraving, "tying on" stoppers in the "homeopathic rooms" where small vials are made from tube glass, and in the "graduating rooms" where medical and scientific glassware is finished. In 1887 there was a Knight of Labor assembly in the Bellaire, Ohio, district whose membership was composed almost entirely of women employed in the various glass plants of the district. In December of that year women are reported as sorting glassware in the leer room of a tableware house in western Pennsylvania, and also as working in the etching room, evidently at copper-wheel etching. A correspondent of a trade journal, commenting on this, says: "But there seems to be plenty of girls in all flint houses now, and the boys don't care, for it makes them feel like home to be in society even if there is a stone wall between some of them."

From 1890 to 1900 the total number of glass factories increased from 294 to 355, or 20.7 per cent. But in those branches of the industry specifically covered by this investigation the relative increase was even greater—from 194 to 261, or 34.5 per cent. While the number of women in the industry as a whole increased from 1,885 to 3,529, or 87.2 per cent, the number employed in those branches covered by this report increased from 1,818 to 3,509, or 93 per cent. During the same period the increase in the employment of men in this latter group of establishments was 24.3 per cent, or a little more than one-fourth the rate of increase shown by women.

From 1900 to 1905 the census reports show a slight decrease in the number of women employed in the industry, but the results of the present investigation of 1908 show that the decrease was only temporary. This latter fact can not be shown precisely, as the figures for the 1905 census and for the investigation of 1908 do not refer to quite the same group of facts. The 1908 investigation shows the normal number of employees for the year or portion of a year during which the factory was in operation, whereas the 1905 census shows the average number of employees for the year; and as very few glass factories operate the whole year, the average number would be somewhat less than the normal number. But even when liberal allowance is made for this difference, it is of value to note that in 1908, 116 establishments were employing 4,049 women and 583 girls, whereas in 1905 all establishments in the United States were employing 3,430 women and 644 girls. ([a])

The statement has been made that women have gained an entrance into the industries of England only by going in as strike breakers. This certainly is not true in the United States in the broad way in which it is stated for England, and yet in the glass industry strikes have had much to do with the extension of women's employment. In 1881 there were a number of strikes for increase of wages or to recover the losses from reductions during the stress of 1877. The depression of 1883 was followed by strikes in 1884 against reductions, and it is in 1884 and 1885 that the increased tendency toward the employment of women is especially noted. In February, 1889, there was a strike of the men employed at engraving in the tumbler works at Rochester, Pa., because the firm wanted to employ girls on the cheaper grades of ware and simpler kinds of engravings. The men refused to teach the girls to do the work, and when ordered to so teach them, struck. In October, 1890, the union packers in a Pittsburg flint-glass plant making shades, tableware, etc., struck, and their places were filled with women.

It is not evident, however, certainly not clearly so, that women generally came in as strike breakers, but rather that they came in while wages were low and during an expansion of the industry that was struggling against an increase of wages commensurate with the expansion. In other words, they seem to have come in as a result of an attempt to keep wages for unskilled work during the prosperous years beginning with 1885 down to the lower level of 1883. Proving successful in the places where their labor was tried, they were taken on in other plants where no labor trouble was pending.

About this period, also, there was a marked tendency to readjust certain parts of the work so that women could be more readily employed. New methods and new machines were devised with this end in view, and in many cases the organization of the working force was differently adjusted. Certain processes which had formerly been done by men of considerable skill were broken up into smaller subprocesses which ceased to require skill. Machinery was adapted to women and much of it was and is advertised as being so adapted.

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[a] The census of 1905 reports simply "children under 16," and does not report the number of male and female children separately. The number of girls entered above is therefore an estimate, based on an interpolation between data given in Census Bulletin No. 69, p. 85, and the present investigation's results, but is certainly a close approximation to the exact facts.

PRESENT EXTENT OF EMPLOYMENT OF WOMEN AND GIRLS IN THE INDUSTRY.

Excluding establishments engaged in the manufacture of mirrors and electric lamps, 179 glass factories were covered for this report. Of these 179, 116 were employing women at work other than clerical, and of these 116, 74 were also employing girls under 16 years of age. The total number of women so employed was 4,049; the total number of girls, 583. One of these girls and 78 of the women were engaged in the furnace room, and their employment has already been discussed in Part I of this report. Subtracting these items there remains 3,971 women and 582 girls employed in the finishing and leer rooms, the divisions of the factory now to be considered.

The following table shows the distribution of all these female employees by States, and shows separately the information for all factories and that for those factories which had furnace rooms. The difference—10 in total—represents factories which did not manufacture the original glass but purchased their "blanks" for finishing from other factories which did have furnace rooms.

NUMBER OF FEMALES 16 YEARS AND OVER, AND UNDER 16 YEARS, EMPLOYED IN FINISHING AND LEER ROOMS OF THE GLASS FACTORIES INVESTIGATED.

State.	All factories investigated.				Factories having furnace rooms.			
	Females 16 and over.		Females under 16.		Females 16 and over.		Females under 16.	
	Number of establishments.	Number of females.	Number of establishments.	Number of females.	Number of establishments	Number of females.	Number of establishments.	Number of females.
Massachusetts and Connecticut	3	111	1	3	2	63	1	3
New York	9	260	2	14	7	199	2	14
New Jersey	10	137	8	24	9	133	7	23
Pennsylvania	35	1,288	25	327	31	1,199	22	310
Ohio	14	717	10	52	14	717	10	52
Indiana	15	369	9	40	15	369	9	40
Illinois	7	367	4	6	5	307	3	5
Kansas and Missouri	4	84	1	3	4	84	1	3
West Virginia	15	607	12	111	15	607	12	111
Maryland	3	29	1	2	3	29	1	2
Virginia	1	2			1	2		
Total	116	3,971	73	582	106	3,709	69	563

As the proportion between factories investigated and factories existing was substantially the same in each State, the relative rank of the several States in the matter of female glass employees as shown in this table may be accepted as correct. This being so, it would appear that Pennsylvania is by far the largest employer of female glassworkers, more than one-third (35.6 per cent) of the total number of such persons being there employed. Ohio and West Virginia are the next in rank, with a combined total slightly less than the total of Pennsylvania. These three States together, therefore, employ approximately two-thirds (68.1 per cent) of all the women and girls in the industry. It is also to be noted that Pennsylvania employs an undue proportion of females under 16, no less than 56.2 per cent of the total; and that the addition of Ohio and West Virginia brings this proportion up to 84.2 per cent.

The number of female employees in an establishment is dependent primarily upon the character of the product. The manufacture of bottles and jars offers comparatively little opportunity for the use of females. Women may perform the operations preparatory for shipping, sorting, packing, etc., but the number of persons necessary for such work is very small. On the other hand, a factory engaged in the manufacture of decorated ware, shades, tableware, novelties, etc., offers an increasing multitude of finishing operations which women may perform. Thus it may be observed in the preceding table that in New Jersey, which is almost entirely a bottle State, 10 factories employ only 161 women and girls, whereas in West Virginia, in which the manufacture of bottles is very subordinate, 15 factories employ 718 women and girls. This difference in result is in no way due to the differences in the laws of the two States.

The exact degree in which the character of the product affects the employment of females is shown in more detail in the following table. This table classifies the factories investigated according to the product in which they specialize, and shows for each group the number and per cent of factories employing women and girls and the number and per cent of women and girls so employed.

NUMBER AND PER CENT OF FEMALES EMPLOYED IN GLASS FACTORIES INVESTIGATED, BY KIND OF PRODUCT.

Kind of product.	Establishments.			Employees.				
	Number investigated.	Employing females.		Total number all departments.	Females.			
		Number.	Per cent.		16 years and over.	Under 16 years.	Total.	Per cent of total number of employees.
Prescription and other flint bottles.	75	31	41.3	21,759	[a] 754	[b] 68	[c] 822	3.8
Beer bottles	16	3	18.8	7,336	87	4	91	1.2
Jars and insulators	18	15	83.3	4,555	322	32	354	7.8
Tableware	33	33	100.0	9,445	1,491	274	1,765	18.7
Shades	23	20	86.9	7,584	813	155	968	12.8
Novelties	2	2	100.0	555	183	28	211	38.0
Blanks, cut glass	12	12	100.0	3,651	321	21	342	9.4
Total	179	116	64.8	54,885	[a] 3,971	[b] 582	[c] 4,553	8.3

[a] Not including 78 females in furnace room.
[b] Not including 1 female in furnace room.
[c] Not including 79 females in furnace room.

Examination of the last column of this table will show clearly the relation of the employment of females to the character of the product. Thus in the manufacture of beer bottles females constituted but 1.2 per cent of the total employees of such factories, and of flint bottles but 3.8 per cent; whereas in shade manufacture the per cent of females was 12.8 and in tableware 18.7. In the manufacture of jars and insulators the proportion of female employees was higher than in the other branches of bottle making because of the common use of women and girls as jar cappers.

It may also be noted that the women employees were by no means equally distributed among the factories employing them. Of the 31 flint-bottle factories employing 822 females, 5 plants in Illinois employed almost one-half of the total number. Of the 3 beer-bottle factories employing a total of 91 females, one plant in Illinois employed 53, or 58 per cent of the total. Of the 33 tableware factories employing a total of 1,765 females, 6 factories in Ohio employed 420, or 24 per cent; 14 establishments in Pennsylvania employed 765, or 43 per cent; and 11 establishments in West Virginia employed 513, or 29 per cent.

Racially the females employed in the glass industry do not present many features of interest. It does not appear that the work of the glass factory appeals to certain races more than to others. The variety of the work is so great that opportunity is offered for whatever racial aptitudes may exist, and there was little evidence of racial preferences among employers. On the whole it may be said that in any given factory the proportions existing among the female employees in the matter of race are approximately the same as those existing in the particular community itself. This is indicated, as nearly as state lines permit, in the following table, which classifies by States the 3,255 females from whom personal information was obtained according to race and nativity.

NUMBER OF FEMALES IN FINISHING DEPARTMENT OF ESTABLISHMENTS INVESTIGATED, BY NATIVITY AND RACE, FOR EACH STATE.

Nativity and race.	Massachusetts and Connecticut.	New York.	New Jersey.	Pennsylvania.	Ohio.	Indiana.	Illinois.	Kansas and Missouri.	West Virginia.	Maryland and Virginia.	Total.	
											Number.	Per cent.
Native-born of native parents:												
White	12	97	98	410	344	222	90	51	352	14	1,690	51.9
Colored	......	......	......	3	......	1	4	2	......	......	10	.3
Native-born of foreign parents:												
English	......	11	2	57	8	7	2	1	10	......	98	3.0
French	2	4	1	34	3	10	......	......	4	......	58	1.8
German	......	26	13	213	80	17	29	......	49	1	428	13.1
Irish	16	42	5	87	27	3	7	3	15	......	205	6.3
Italian	1	1	......	16	......	......	2	......	......	......	20	.6
Slav	......	15	......	180	21	1	31	......	1	......	249	7.7
Other races	6	4	......	33	10	3	4	......	5	......	65	2.0
Total	25	103	21	620	149	41	75	4	84	1	1,123	34.5
Foreign-born:												
English	4	2	1	23	4	1	1	......	3	......	39	1.2
French	......	......	1	27	7	2	1	......	11	......	49	1.5
German	......	5	1	64	10	3	5	......	14	......	102	3.1
Irish	3	6	1	9	......	......	......	......	......	......	19	.6
Italian	......	1	......	23	......	......	......	......	3	......	27	.8
Slav	......	10	......	108	12	......	16	......	6	......	152	4.7
Other races	2	1	1	32	4	1	......	......	3	......	44	1.4
Total	9	25	5	286	37	7	23	......	40	......	432	13.3
Total, all nativities.	46	225	124	1,319	530	271	192	57	476	15	3,255	100.0

In each of the listed States the females of native-born white parentage predominate in the industry, and the degree of their predominance in each State is roughly that of their predominance in the working population of the State, or at least in those parts of the State where the glass industry is located. Thus in Pennsylvania the American whites are but a third of the whole, the glass factories being chiefly in the western part of the State, where the recent immigrant population is very large; whereas in southern New Jersey, where immigration has been comparatively slight, the American white forms approximately four-fifths of all the female glassworkers. Again, it may be noted that in Pennsylvania the Slav, both native-born and foreign, forms a significant portion of the female glassworkers, this race occurring chiefly in the factories in or near Pittsburg, where the Slav population is now considerable.

The ages of the 3,255 females for whom personal information was obtained is shown in the following table:

NUMBER AND PER CENT OF FEMALES EMPLOYED IN GLASS FACTORIES INVESTIGATED, BY AGES.

[Female furnace-room employees are not included in this table.]

Age.	Number of females.	Per cent.
12 years	3	0.1
13 years	12	.4
14 years	161	4.9
15 years	305	9.4
16 years	523	16.1
17 years	450	13.8
18 years	411	12.6
19 years	260	8.0
20 years	203	6.2
21 years	146	4.5
22 years	98	3.0
23 years	77	2.4
24 years	66	2.0
25 to 29 years	135	4.1
30 to 34 years	62	1.9
35 to 44 years	69	2.1
45 yearsand over	25	.8
Others, reported as 21 years and over	249	7.7
Total	3,255	100.0

From this table it will be seen that one-half of all the female employees are 16 to 20 years of age. The age of greatest numerical density is 16, 16.1 per cent of all the females employed being of this age, and after 18 the decrease in numbers is very rapid. On the whole, however, the industry does not offer much opportunity for the very young girl, and the small percentage of girls under 14 years of age shown in the table may be taken as fairly representing the industrial demand for such persons and not merely as being the result of laws restricting the employment of children. In West Virginia, for instance, the law permits of the employment of children under 14, and the glass factories of the State are chiefly engaged in these branches of the industry, tableware and shades, in which the use of females is most extensive, but there is comparatively little demand among the factories of this State for the services of the very young, or rather small, girl. In contrast to the furnace-room work of the glass factory there is no sentiment that child labor in the finishing department is particularly necessary or desirable except in the matter of lower wages. In finishing-room work, indeed, the child is generally recognized as a much less efficient worker than the adult woman, and with most employers the saving derived from the lower wage paid the young girl is not sufficient, or at least no more than sufficient, to compensate for the lesser efficiency of such girl.

On the other hand, while much of the work done by females is so unskilled that experience and increasing maturity count for comparatively little, the older, more experienced woman is almost always in some degree a more careful and more efficient worker. This increase in efficiency usually more than compensates for the increased wage, the wage increase being, indeed, very gradual and slight after the age of 18, as will be seen later. Thus most employers are more interested in maintaining a steady force of women and, for this reason, in retaining the experienced worker than in simply keeping up a supply of child labor. In this respect, as in the one previously mentioned, the finishing department is in marked contrast with the furnace room.

The conjugal condition of the 3,255 females for whom the information was obtainable is shown in the following table, which shows for each age the numbers and percentages of females who were, respectively, single, married, widowed, divorced, separated, and deserted:

NUMBER AND PER CENT OF FEMALE EMPLOYEES OF EACH CONJUGAL CONDITION IN GLASS FACTORIES INVESTIGATED, BY AGES.

[Female furnace-room employees are not included in this table.]

Age.	Total number.	Number—			Per cent—		
		Single.	Married.	Widowed, divorced, separated, and deserted.	Single.	Married.	Widowed, divorced, separated, and deserted.
Under 15 years	176	176			100.0		
15 years	305	305			100.0		
16 years	521	520		1	99.8		0.2
17 years	450	446	4		99.1	0.9	
18 years	411	404	4	3	98.3	1.0	.7
19 years	260	254	4	2	97.7	1.5	.8
20 years	203	196	7		96.6	3.4	
21 years	146	140	5	1	95.9	3.4	.7
22 years	99	91	5	3	92.0	5.0	3.0
23 years	77	71	1	5	92.2	1.3	6.5
24 years	66	55	8	3	83.3	12.1	4.6
25 to 29 years	129	104	18	7	80.6	14.0	5.4
30 to 34 years	69	36	14	19	52.2	20.3	27.5
35 to 44 years	70	29	22	19	41.4	31.4	27.2
45 to 54 years	18	3	8	7	16.7	44.4	38.9
55 to 64 years	5		1	4		20.0	80.0
65 years and over	1			1			100.0
Others, reported as 21 years and over	249	184	36	29	73.9	14.5	11.6
Total	3,255	3,014	137	104	92.6	4.2	3.2

It will thus be seen that in total 92.6 per cent of females of all ages were single, as against 7.4 per cent who were or had been married, and that eliminating all those under 18 years as being below the normal marriageable age, 86.9 per cent were single, as against 13.1 per cent who were or had been married. On the whole, it seems that the matter of the conjugal condition of female employees has little, if any, particular or peculiar relation to the glass industry. Almost none of the employers expressed any preference for single women or for married women. Few, indeed, had ever given the matter any consideration whatever. There is certainly not the slightest evidence that the conjugal condition of the woman affects her efficiency in the work or her opportunity to obtain employment in the industry. Nor does it appear that this factor at all influences wages.

As was pointed out in the preceding historical survey, the employment of females in the industry has been gradually extending itself during the course of years not only numerically, but also in the field of employment. In the furnace room women have never gained more than a tentative and doubtful foothold, but in the leer room and finishing room they are now engaged in almost all the existing occupations. A few of those in which the work is especially heavy or highly skilled are still entirely or largely filled by men, but in a much larger number the woman is predominant. Thus, to cite a specific example, in an important modern equipped tableware factory in West Virginia the proportion of females to males in the finishing department was approximately 15 to 1, the men being engaged chiefly as foremen and overseers and in the handling of the heavier articles; there was no finishing occupation as such in which women were not represented.

The girls employed perform the same work as that performed by the women, although, of course, the younger girls are usually engaged at the simpler, easier tasks. Extremely few boys are employed in either the leer room or finishing room. Usually they are not particularly desired. The boy's wages, for reasons noted later, are commonly as high as those paid the woman, the young woman at least. Therefore, as, on the whole, he is less efficient than the woman at finishing work, there is no particular reason for his employment so long as women are obtainable, and they usually are obtainable. The boys who are found employed in this division of the factory, approximately 2 per cent of all the boys employed in the industry, are engaged at the simpler occupations, but even in them the boy is never an important factor.

The following discussion of the work and conditions of the finishing and leer room, therefore, will concern itself chiefly with the women. Whatever is stated in regard to the work of women may be taken as true as regards that of children, whether boys or girls. The occupation table (Table X) will show in what particular occupations children occur, and further than this it will seldom be necessary to mention separately the children in the discussion.

With this preliminary description of the place of the woman in the glass industry, attention may now be given to the actual work and working surroundings of women in the industry. Upon these specific points the leer room and the finishing room must be considered separately. From the standpoint of number the finishing room is much the more important, there being approximately three times as many females in the finishing room as in the leer room. The exact figures are shown in the following table, which distributes the 3,971 women, 582 girls, and 113 boys concerned among the two departments:

NUMBER OF WOMEN AND CHILDREN EMPLOYED IN LEER ROOMS AND FINISHING ROOMS OF GLASS FACTORIES INVESTIGATED.

	Females.		Males under 16 years.	Total.
	16 years and over.	Under 16 years.		
Leer room	1,052	142	32	1,226
Finishing room	2,919	440	81	3,440
Total	3,971	582	113	4,668

CHAPTER XI.

THE LEER ROOM AND FINISHING ROOM AND OCCUPATIONS OF WOMEN AND GIRLS.

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WORK OF THE LEER ROOM.

It will be remembered that when an article has been molded in the furnace room it is taken by the carrying-in boy to the annealing leer. It is carried through the long tunnel-like leer on a series of moving pans, and emerges cooled and annealed into what is practically another division of the building. This division is the leer room. Sometimes it is really a separate room; more often it is merely a portion of the main room, but so partitioned off by the leers from the blow room proper as to constitute a distinct working section. Its limits are determined rather by characteristics than by walls.

The term "leer room" is, of course, only applicable to those factories which make use of the "leer" method of annealing. When "ovens" are used for this purpose there result certain differences in the work and in the distribution of the working space. As, however, the warming-oven method of annealing is now so infrequent it may be disregarded in this discussion. This is the more permissible as in the few factories in which annealing is done on any scale in "ovens," no women were found employed in the subsequent occupations.

The work of the leer room is removing the annealed ware from the cold end of the leer, the operation itself being known as "taking off the leer."

As a general rule, it may be stated that in tableware and shade factories the use of the leer room is almost entirely confined to the taking of the ware off the leer, while in bottle and jar factories the leer room is used for a number of purposes besides this primary one. This is due to the fact, noted in an earlier section, that a tableware or shade factory commonly has a finishing department separate from its furnace department, whereas a bottle or jar factory, with little "finishing" or elaborating work to do, has no distinct finishing department.

Until comparatively recently the work of the leer room was confined almost entirely to men, and most of it is even now regarded as "man's work." Women are still looked upon somewhat as interlopers. In one factory their efficiency and economy are highly commended; in another factory, possibly a close neighbor of the preceding, the use of women in the leer room is condemned as financially unprofitable and morally bad. Built to be used by men, the leer rooms are not usually physically adapted to the employment of women. Entering the occupation of "taking off the leer" before the plants are reconstructed for their accommodation, women find themselves working under conditions and amid surroundings unfit for women.

The surroundings of the leer room are determined primarily by the character of the furnace room, the two being normally part of the same building. A common arrangement is as follows: The furnace room forms the dominant feature, occupying possibly half of the inclosed space. This room is of a more or less square shape, but the presence of the long, narrow leers requires that the building be extended on one side a distance of 50 to 100 feet. At the far end of this extension is the leer room, and adjoining this or in more or less detached buildings, the storerooms, the mold room, and the machine room. If it be a tableware or shade house there is probably a separate and better building to which the ware is transferred for "finishing" as soon as taken off the leer. If, however, it be a bottle factory the packing of the ware as well as any minor elaborating is done in the leer room.

The leer room is thus a structural part of the building that houses the furnace room, and the physical tone of the two are generally the same in any one factory. In both cases the building is almost always simply a covering, offering protection from the weather, but little else. The walls and roof are rough and unceiled. In the furnace room this open character of construction helps to temper the heat of the furnace; in the leer room the openness renders it unduly cold in winter. The heating provisions of the leer room are usually braziers or open stoves, but rarely are they sufficient. In only three factories were the leer rooms even moderately well heated. Working in the average leer room, as was noted in the case of the furnace room, is very much like working out of doors. Ventilation is uniformly good, and the working space is never overcrowded. The room is usually littered with boards and boxes and bottles, but there is rarely any offensive dirt or rubbish. Almost always of one story, and never of more than two, with a few workers for a large working space and numerous doors and windows, the building which houses the leer room is never of a character to endanger the employees by fire. There is never any elaborate machinery and rarely any pulleys or belts which might cause accident.

OCCUPATIONS OF THE LEER ROOM.

TAKING OFF THE LEER.

The operation known as "taking off the leer" consists in removing the cooled ware from the leer, examining it for defects, throwing aside the imperfect pieces and placing the perfect ones in boxes or crates.

A leer is usually so constructed that the pans of ware are pulled through the leer by a hook-and-chain arrangement. The outermost pan rests on a support clear of the leer opening, so that it is not necessary to actually reach into the opening to remove the ware. When this one pan is emptied of ware it is unhooked from the following pan, swung to an overhead pully, and pushed by this means to the other end—the hot end—of the leer, where it is put in place and begins another journey. Meanwhile a pulling of the chain has dragged out another pan filled with cooled ware, ready to be removed and crated.

The swinging of the empty pans to the overhead pulley and their carrying to the other end of the leer is hard physical work, and is nowhere done by women or children. In a few instances, however, it was found that the women takers-off occasionally pulled the chains. This was done to hasten the work, when, for one reason or another, the man whose duty it was to handle the pans was absent. The pulling of these pans requires severe muscular exertion, too great for the average woman. It is man's work, and is so regarded everywhere.

The pan from which the ware is to be taken rests, as described, immediately in front of the worker and convenient to hand, but the height of the pans from the floor is not always the same. Sometimes it is waist high and the ware can be removed with little bending, but more often it is sufficiently low to necessitate constant stooping. So, too, with the boxes or crates into which the ware is to be put. In half of the factories in which women are employed at this work, the crates are simply placed upon the floor, and, as a consequence, constant bending is made necessary. It is perfectly feasible to provide stands for the crates; the work is thereby rendered much easier and the speed is not reduced. The matter is of importance, as a constant stooping posture is a working position particularly unfavorable to a woman's health.

In none of the factories employing female takers-off are the women expected by the management to lift or carry the crates when full. As a matter of fact, however, they very often do. The management assigns a man to do the carrying, but, as the amount of such work is seldom sufficient to employ a special man, one of the regular workmen, a packer or a yard laborer, is commonly instructed to lift or carry the filled crates for the women as they need him. Usually he performs his duty in full. On several occasions, however, it was observed that the women takers-off would not wait for the man if he were slow in coming, but would lift and move the heavy crates themselves. The women are paid a piece rate or, less usually, a time rate with a daily task to perform; in either case any considerable delay in their work is to them a hardship.

The work of taking off the leer is almost always a very dirty occupation. In two factories the gas combustion within the leer was good and little or no smoke or soot escaped into the leer room, and the takers-off were able to keep themselves reasonably clean. In most factories, however, the persons and clothes of the women soon become very soiled. In one place the smoke was visibly oozing from the leer opening and the taker-off was grimy with soot. This latter case was exceptional, but almost always the rear or leer room end of the leer is sufficiently dirty to render care of the person impossible. Moreover, in only three of the fourteen establishments in which women take off the leer are wash rooms or any washing facilities provided. One woman, employed in a factory which provided no washing facilities whatever, complained that she had to walk home each evening because, on account of her uncleanly appearance, she was ashamed to ride on the street car.

The dirtiness of the work of taking-off, combined with the necessity of a constant stooping posture and the general character of the place where the work is done, tends to have a coarsening influence upon the women so employed. They work singly or in pairs, and very often in intimate association with a few men. That these conditions have a demoralizing tendency is shown by the fact that in two establishments it has been found necessary to post signs threatening instant dismissal to any man caught talking with the women takers-off. The work is usually regarded by the other women of the factory and by the community generally as more or less degrading, and as an occupation for women it has possibly the lowest social standing of any in the glass industry.

In summary, therefore, it may be stated unqualifiedly that taking ware off the leer is work unfit for women. This is, moreover, the stated opinion not only of all those managements who do not employ women at the work, but also of three of the fourteen of those that do. In these cases the managers, employing women takers-off, condemn the work as being demoralizing for women and regretted the local circumstances that render it necessary to so employ them. One establishment has recently discontinued the employment of women takers-off, their reason for the change being that the working of women at the leer had been found to exercise a harmful moral influence upon the whole factory.

The foregoing consideration of the employment of women at the work of taking off the leer has been concerned with the work as performed on the day shift, this being the usual practice. In all but one factory women are never employed at night, men only being used on the night shift. In this one factory, however, women are employed by night as well as by day. This practice is out of harmony with the whole attitude of the industry, there being only two other scheduled instances of white women being worked on a night shift. In the particular factory mentioned the women themselves do not complain; the working surroundings are so intensely warm so many weeks in the year that they prefer the relief afforded by the coolness of night. Nevertheless, all the objections cited against women's employment at this work in the daytime hold in an intensified form for their so working at night. In addition, there may be noted the lower moral tone of the glass factory at night, and the fact that the night force quits at half past 2 in the morning. At this hour the women must return to their homes alone.

The employment of women at the occupation of taking off the leer is not, and never has been, general in the industry. The first instance of such employment dates back to a chance beginning about twenty years ago. Since then the practice has been tried in numerous places, and usually abandoned after a short trial. During the year of this investigation there were 15 factories employing women and girls at this work. The number so employed was 79, 70 of whom were 16 years of age or over and 9 under 16. These were distributed by States as follows:

NUMBER OF FEMALES EMPLOYED AT TAKING OFF THE LEER IN GLASS FACTORIES INVESTIGATED, BY STATES.

State.	Number of establishments.	Number of female employees 16 years and over.	Number of female employees under 16 years.
New York	1	4	....
New Jersey	1	4	1
Pennsylvania	5	26	5
Ohio	2	5	1
Indiana	2	7	1
Illinois	3	22	1
Virginia	1	2	....
Total	15	70	9

SORTING AND PACKING.

When ware is being taken off the leer some elementary sorting is always done. The taker-off examines, at least cursorily, the articles before depositing them in the crate, and throws aside such as are palpably defective. Occasionally the same persons who take the articles off the leer also pack the ware directly into boxes, but with the women takers-off this is rare. Commonly the takers-off do only an elementary grade of sorting as they place the ware in temporary crates. These crates may then be carried to a special set of sorters, who critically examine each article before it is passed to the packer. More often, however, the crates are taken directly to the packer who does the final sorting while packing.

Sorting as a special occupation requires little more than a fair intelligence and a reasonable amount of care. Packing in its simplest branches is almost equally unskilled, although in the packing of certain grades of glassware there is considerable skill.

The methods of packing differ somewhat with the character of the ware. The cheaper bottles, such as beer bottles, when sold in quantity may be simply stacked in tiers directly in the freight car. Other of the common bottles are packed bare in boxes, the necks of the upper layer dovetailing with the necks of the lower layer. Tableware and shades may be wrapped in paper and boxed with straw. With jars and many other classes of ware the interior of the box is squared off with wooden or pasteboard partitions and each article thus supplied with a separate compartment. This particular method of packing, together with the use of paper cartons, is rapidly extending, and is now the dominant form with all the better grades of glass articles. It has many advantages over the straw method, and renders the packing room a much cleaner and healthier place in which to work. Leer-room packing, however, that with which this section is primarily concerned, is almost entirely confined to bottles, jars, and cheap tableware, and these are still packed according to the older methods.

Direct packing into freight cars is physically hard, as is the handling of very large ware, such as half-gallon bottles, and these classes of packing are always done by men. As a rule women are only efficient and are only employed in the packing of the lighter varieties of ware, such, for instance, as bottles under 8-ounce capacity (7-ounce weight). With such ware as this neither sorting nor packing entails any considerable physical strain. Sorting requires merely examination for defects. Packing consists in the placing of these articles in boxes or crates as described. The occupations are neither hard in themselves nor need they be unpleasant.

The feature of the work most trying to a woman is that of constant standing. In packing some few varieties of ware the work proceeds so slowly that the packers may sit at least a portion of their time. Usually, however, this is not the case. The packers are expected to accomplish their work so speedily that they must stand. Sitting hampers the work, partly because of the bad placing of many packing tables and partly because the boxes are filled quickly, and after each filling the packer must rise either to remove the box or to change position.

Usually the women packers or sorters do not lift the crates and boxes, either full or empty. Either special men are assigned to this work or if male packers are also used they are directed to do all the lifting and carrying for the women. In two factories, however, no such arrangement is made. In one of these women packers are required to lift and stack all the boxes they fill. These boxes average about 75 pounds in weight. In the second factory referred to the packers carry the trays from the sorters to the place where the packing is done. This is heavy work, as the trays full of bottles weigh between 50 and 75 pounds, and they must be carried an average distance of 20 feet.

In none of the other factories scheduled were women sorters or packers specifically required to do their own lifting, but in a number of places it was found that women did carry their own trays and boxes occasionally and in a few cases with considerable regularity. The circumstances were similar to those noted in the discussion of the women takers-off. Men are assigned the work, but, knowing that the women will lift and carry for themselves rather than wait unduly, the men often become indifferent and careless. The most extreme case of this was found in a beer-bottle factory. Here the man whose duty it was to stack the trays when filled was either almost consistently negligent or was given more work than he could do. As a result, the women sorters did practically all the stacking. Pint beer bottles were the common product, and a tray full of such ware weighs about 80 pounds. These were lifted by the women and stacked in a pile the top of which was made as high as the women could reach.

CAPPING FRUIT JARS.

The rather important occupation of capping fruit jars may be classed as a leer-room occupation. In the smaller factories, where fruit jars are made by hand, it is distinctly such, and in the larger machine factories the capping is done, if not in the leer room as such, at least in rooms or buildings which are very similar to the leer room in construction and in surroundings.

At present fruit jars are manufactured almost entirely in a few large establishments which devote themselves primarily to this one line of production. There are, however, a number of bottle factories which occasionally make fruit jars in small quantities, usually to fill special orders. In such cases there are no special arrangements made for capping the jars, the work being performed in the leer room or packing room and usually by a few of the regular employees, temporarily transferred to this work.

In the larger factories, however, which make a specialty of this class of work, the capping of the jars becomes an occupation of considerable numerical importance. Usually the amount of such work warrants the construction of a special building or at least the addition of a special room to the furnace-room building. In either case the character of the accommodations offered the capper is of the rough, bare character of the leer room. Where special buildings have been constructed for the purpose they are uniformly of a single story and with one exception cheerless, of an unfinished appearance, and in one case very dirty. The ventilation is uniformly good, the provisions for heating generally very bad.

The work of capping jars is one of absolute simplicity, requiring no skill or training whatever. It consists merely of placing the cap upon the jar and screwing it on, if it be a screw cap, or twisting a wire, if it be of the wire-cap variety. The work is done entirely by hand, but in the larger factories conveyors are now generally used in order to quicken the speed. The arrangement is simple. A long central table contains two sets of conveyors, one passing along the surface of the table, the other either above or below the surface. The ware is placed on the first conveyor, the movement of which brings it past the cappers who are arranged about the table. As the articles pass the capper picks off a jar, screws, or otherwise fastens on the metal cap, and places the capped jar in a box. When the box is full (usually it holds eight to twelve) it is placed on the second conveyor, which carries the box away. If this second conveyor is above the table it is necessary for the capper to lift the box a considerable distance, and as a box of eight jars of quart size weighs 8 or more pounds and is rapidly filled, the constant lifting becomes an important feature of the work. The placing of the removal conveyor below the table makes the work easier and is just as efficient.

Sometimes a slightly different method of capping is used. Instead of passing the jars singly along the conveyor they are first boxed. Then as a box of uncapped jars passes the cappers and while it is still in motion each person caps one jar. As a result, when the box emerges at the far end it has simply to have its lid nailed on before being marketed. Also with certain varieties of jars, the jars are not capped at all, the caps being placed separately in the box. This work also makes use of the conveyor system.

In all but one of the factories the cappers are required to stand at their work constantly. It is claimed that the work is not of a character that can be well done while sitting, and that the persons doing it prefer to stand. This is only partially true, as is shown in the one factory which does provide seats. Here it was found that, although the cappers prefer to stand most of the time, they do use the seats as a means of relief when tired or unwell. Moreover, it did not appear that this occasional use of seats hindered the speed of the work.

In other respects the work of capping jars is neither hard nor disagreeable, nor is there danger of accident. It is work in which, on the whole, women are at least quite as efficient as men and probably more efficient.

TYING STOPPERS.

The occupation known as tying stoppers is, as its name indicates, the tying of glass stoppers on or to the necks of such bottles, cologne bottles for instance, as are sold with fitted glass stoppers. It is an occupation of utmost simplicity, and is devoid of all strain and physical hardship. The work permits of the use of seats, and in all but one of the factories visited seats were provided and used when desired. In the one exceptional factory the lack of seats was without any possible reason. The work may or may not be done directly in the leer room, but it may conveniently be classed as a leer room occupation.

CHIPPING AND FILING.

Certain classes of glassware, such as tumblers, shades, and all screw-neck bottles and jars, come from the leer with necks rough and jagged; often there is a large excess "shoulder" left by the molding process. In the case of tumblers or a shade the article is immediately removed to the finishing room and this shoulder removed by aid of a mechanical device. This operation is known as "cutting off," and will be described later. In the case of the cheaper articles which require no special finishing except smoothing of the neck, the removing of the excess shoulder or roughness is done by simply chipping or filing with an iron tool. Almost always such work is done in the leer room. The worker holds the article in one hand and with the tool in the other breaks away small particles of the excess glass until the neck is reduced to a considerable degree of smoothness. When still greater smoothness is desired the neck may be ground, but with many cheaper articles, such as screw-neck salt and pepper boxes, the chipping or filing is sufficient.

The difficulty of the work varies, of course, with the size of the articles handled. Usually, however, the articles are not sufficiently large to cause any strain in handling, and in any case men are almost always assigned to the larger and heavier pieces. The most unpleasant feature of the work is that of the flying particles of glass necessarily produced by the strokes of the metal on the glass. The more experienced chippers so handle the article and the file that most of the broken particles fall downward. But always there is some scattering of the glass and occasionally the pieces fly in the face of the worker. Flesh cuts, particularly on the hands, are frequent, especially with the younger or more careless girls. No permanent injuries, however, were scheduled.

The work is not of a character that requires the worker to stand and it was not evident that sitting interfered at all with efficiency or speed. Nevertheless the majority of the females found engaged in this occupation worked standing, even when seats were accessible, and in a few factories no seats were provided.

MOLD CLEANING.

The interiors of the iron molds used in glass blowing require frequent cleaning. Particularly is this so when the molds are of a pattern type, with numerous indentations subject to clogging and incrustation after repeated blowings. The cleaning of the heavy molds is laborious, and was everywhere being done by men, usually by means of power-revolved brushes. The cleaning of the smaller molds, and the final polishing of the heavy molds, are, however, much lighter work, the worker sitting at a table, upon which the mold rests, and removing the soil and grit with cotton waste and oils. Women have been found to be efficient at this lighter grade of mold cleaning and are frequently employed at it, although they are by no means dominant in the occupation. The work is extremely dirty, but is entirely sedentary and does not involve any continuous or serious strain. The necessary number of mold cleaners in a factory is not large; in the average factory two women for the lighter work and one man for the heavier work are normally sufficient.

The parts of the factory building in which the mold cleaning is done are not the same in all establishments. Usually there is a distinct "mold room" in which molds are cleaned as well as made; at other times the women cleaners are given a corner in the leer or packing room or even in the cellar, if there is a cellar. In any case the general surrounding conditions are substantially the same as those already described for the leer room.

WORK OF THE FINISHING ROOM.

A description of the character of the finishing room and its work must necessarily occupy much more space than was necessary with the corresponding description of the leer room. The leer room is always of the same general type—a low, open, rough building—and the work done therein while differing in severity is all of a rather simple character. The occupations, moreover, are few, more or less traditional in the industry, and easily described. The finishing room, on the other hand, is usually housed in a more pretentious building, variation in the degree of safety and comfort offered the employees becomes more marked, and the occupations are numerous, changing, and frequently not well defined.

The term "finishing room" is here used with the meaning customarily attached to it in the trade. It is, to repeat briefly, that division, section, or department of a glass factory in which the finer varieties of glassware receive their final decoration by grinding, fluting, bevelling, etching, color applications, etc. These operations require a distinct set of workers, very often special apparatus, and factories engaged in this class of work find it necessary to establish a separate department for the purpose. It is this department to which is given the trade name of finishing room or finishing department.

The finishing room need not occupy a separate building; it may be simply an additional room or series of rooms attached to the factory proper. Always, however, there is a distinct structural separation, the more delicate nature of the work in the finishing room requiring more complete and permanent housing than does the rougher, heavier work of the furnace and leer rooms.

In one case, indeed, the finishing department occupies the upper floors of a building, the lower floors of which are utilized for other business. This is extremely exceptional, however. There is nothing in the glass industry that is in any way fitted for home or tenement work, except fringe decorations for lamp shades which is generally "home work."

It is to be noted that the term finishing room as here used also includes those factories in which finishing work only is done. The number of such factories, however, is small. Normally, the same establishment which makes the glass also performs upon it all the necessary finishing operations. There is, of course, no necessity for this close relation. As the finishing operations are performed upon the glass after it has been cooled, an indefinite distance and time might separate the two performances. As a matter of fact, however, the two are seldom separate, the only important exception being in the case of the cut-glass branch of the industry. In that branch of the industry the cutting is very frequently the only work of an establishment, the "blanks" being purchased from factories which practically confine themselves to the one specialty of blank making. With other varieties of finished ware, however, such separation of departments is extremely unusual. Only three cases of the kind were scheduled, and in two of these, while the departments were located in different localities, the managements were the same.

In the course of the investigation 66 finishing rooms or departments, using the term in the broad sense indicated, were scheduled. Of these 66 finishing departments, 10 possessed no furnace rooms. Each of these 66 finishing departments employed women and also employed girls under 16 years of age, the total number of such persons normally employed being approximately 2,919 women and 440 female children. Males over 16 were employed in some degree in all of these places, but boys under 16 were not frequent, the number being but 81.

OCCUPATIONS OF WOMEN AND GIRLS IN THE FINISHING ROOM.

In attempting to describe the specific occupational employments of women and girls in the finishing room consideration must be limited to such individuals as were working in the factories at the time of visiting and whose work could thus be observed. As, however, the number of such individuals constituted more than three-fourths of the normal number employed, there was opportunity of thorough observation and the results may be accepted as amply adequate.

In the furnace room, and even in the leer room, the occupations are few and distinct. In the finishing department, however, the situation is almost chaotic. During the course of the investigation no less than 150 occupations of women were listed. Many of these were of very small membership; a number occurred only in a single factory; several had no well-defined names. The nomenclature of this portion of the industry is, indeed, in a state of utmost confusion. A number of the occupational names in use are actually misleading, and extremely few are satisfactory or even of general acceptance. Sometimes a name is of broad significance, indicating a process rather than an occupation. Thus, to cite one of many instances, there is a number of ways in which glassware may be glazed, but an almost total absence of accepted names for the separate methods.

Again, the same occupational name is sometimes used with different meanings in different factories. Thus the term "smoothing" is used in cut-glass factories to indicate the preliminary smoothing of the facets already roughly cut into the surface of the glass. In ordinary tableware factories, on the other hand, the term is frequently used to mean the grinding of the bottoms or edges of tumblers, a work entirely different in its characteristics from that of cut-glass smoothing.

Furthermore, there is, as between factory and factory, a considerable uncertainty in shop organization. The occupation may be exactly the same, so far as the method of work is concerned, but the organization of its members may be entirely different. Thus, to refer to a previous example, a common form of glazing is that by means of a revolving table, the ware being thereby carried under a hooded flame which melts and smooths the rough edges. In some factories, however, one person attends a table, in others two persons divide the work. And this difference is not merely one of numbers. When two persons are employed the work of each is quite different from what it is when only one person is employed.

With such a multiplicity of occupations, and such an unsatisfactory trade terminology, some selection, more or less arbitrary, was necessary in the interest of an intelligible text. The principle of selection has been as follows: (1) To describe in some detail all the more important occupations, and those of larger membership, but to omit none, however unimportant otherwise, in which the character of the work done is especially favorable or unfavorable to the person employed at it. This will result in a miscellaneous group of persons, 17 per cent of the total, of whom no special mention will be made; (2) to use always the most common trade names, but qualifying them when necessary in order that the word may be specific in its meaning. Thus the one form of glazing described is qualified as the "disk" method, although the term is not universally used.

In order to give some sort of continuity to the following descriptive accounts of occupations, and thereby to render it more intelligible, the method has been adopted, as far as possible, of using a single article as an example and following it through its several processes. A paste-mold tumbler has been chosen as best fulfilling the necessary requirements. The example, it is understood, is hypothetical. It is impossible that a single tumbler could pass through all the processes mentioned—a tumbler that was acid etched would not be sand blasted, etc. But some tumbler might receive any of these treatments, even although no one tumbler could receive all.

In connection with the descriptions of certain occupations a brief statement of the physical and other effects of the work will be given, as also, where particularly pertinent, an account of the speed and piece rates. For the most part, however, the obtained information upon the comparative healthfulness and general desirability of the several women's occupations and of the glass industry as a whole as an employment for women will be reserved for later and more general treatment.

CUTTING OFF.

At the time a paste-mold tumbler enters the finishing department from the blow room it resembles very closely a large, round bottle from which the neck has been roughly broken. The tumbler to be developed is in the lower portion of this bottle-shaped object, as becomes apparent as soon as the excess shoulder is removed. The operation of removing the shoulder is known as "cutting off." At present the flame method of cutting off is the one most commonly employed.

In "cutting off by flame" the person doing the work—the cutter—marks each of these tumbler blanks or bottle-shaped articles at the point at which the shoulder is to be removed. The marking is done with a diamond point, which makes a slight scratch upon the surface of the glass. As soon as it is marked the cutter places the object in the cutting-off machine. This machine consists simply of a revolving holder in which the glass article is clasped, and an adjustable gas flame. The blank having been clasped in the holder, the flame is fixed to strike upon the glass at the line of the point marked with the diamond scratch. The holder is then revolved and almost immediately a fracture commences at the scratch and continues around the object in an even line; that is to say, starting at the check given by the diamond point it follows the line of the expanded glass, heated by the jet of gas flame. The lower portion of the separated article now appears in its true shape as a tumbler. The upper part is discarded as waste glass.

The work of "cutting off by flame" is not sufficiently difficult or skilled to require operatives of either strength or training. Women dominate the occupation, but a number of men and even a few children are to be found in it. It is to be noted, however, that it is very unusual for the men and women to be engaged in doing precisely the same grade of work. Almost invariably the men handle the heavier and finer articles, whereas the women handle the smaller or cheaper objects.

The occupation in itself has no features that render it unsuitable for women. The work is light, clean, and without physical strain. Occasionally the article being revolved breaks, but the revolution of the machine is not sufficiently swift to scatter the particles in a dangerous manner. The gas flame used is not large enough to cause any serious discomfort either of heat or of odor.

The most serious objection to the work as it is now performed is the general absence of seats. Some of the machines in use do not permit the operators to sit and some managers discourage sitting, even when it is possible. There is, however, no reason why all machines should not be so adjusted as to permit sitting, and still less why the operators should not sit when sitting is possible. That no diminution in the amount or quality of output results from this course of action is proven by the experience of the few factories where seats are provided and used.

The flame method of cutting off is the one now used in the great majority of factories. A few, however, still retain the primitive and dangerous method of cutting off by a friction-heated wire. The method is as follows: The uncut tumbler is first placed in a holder and revolved at a high speed. This done, the operator wraps a wire around the article at the point at which the fracture is desired, and holds it firmly. The revolution of the article is so rapid that in a very short time the encircling wire is heated by friction to a red heat and the glass cracked on the line of contact.

The wire method of cutting off is extremely disagreeable and even dangerous. The operator grasps the wire in the hand, and the breaking of an article while revolving at such speed may easily cause severe injury. Moreover, the wire method is unnecessary. For all ordinary cutting-off work it has no merits not possessed by the flame method. It has been profitably discarded in nearly all factories, and there is no occasion for its continued use in those few establishments where it is still to be found. In any case, women should not be employed at this work, as a few are at present.

In cutting off the excess shoulders from large articles of varying shapes, such as punch bowls and lamp shades, an electrically heated wire is often used. The principle is the same as that of the wire heated by friction, except that there is no necessity for revolving the article while being cut. The wire is simply wrapped around the article at the proper point, the current turned on, and when the wire has become heated, a wet sponge is touched against the ware. The resultant chilling starts a crack. The use of the electric wire is confined almost entirely to large, heavy articles. It is never used to cut off tumblers, and in no factory were women or children found engaged in this work.

Cutting off by flame or otherwise applies not only to paste-mold tumblers but to all lamp chimneys not off-hand blown, whether made by machinery or in hand paste molds. All shades, globes, crystal balls, and other articles made in paste molds, except paste mold bar bottles, water bottles, and articles of that class, are treated to the cutting-off process, by some method. In a tumbler factory when the piece rate for cutting off by flame was 25 cents per 100 dozen tumblers the 6 girls working at this work earned for the week the agent visited the plant, respectively, $3.60, $4, $4.80, $5.40, $5.45, and $5.70. Taking $5.50 as the earnings of a fairly rapid worker a cutter off in this plant would handle 2,200 dozen in a week of 56¼ hours, or practically 39 dozen an hour.

Cutting off by wire is a slower process, 200 dozen per day being about the limit of capacity.

GRINDING.

The cutting-off process leaves the edges of the tumbler sharp. This must be smoothed and, as an even, well-rounded drinking edge is one of the most necessary qualities of a good tumbler, considerable care is spent upon the work of smoothing. The first operation is to grind the edge of the tumbler. All fine, thin tumblers must have their edges ground after cutting off. The cheaper heavy pressed tumblers, while not cut off and hence requiring no edge grinding, are frequently ground on the bottom to level them. Bottom grinding is always done by hand; edge grinding by either hand or machine. Many other articles besides tumblers are subjected to the grinding operation, but the methods of grinding are in all cases essentially the same.

For hand grinding there is commonly used a large grindstone revolving horizontally. The person grinding stands before this as before a table and presses the article, edge downward, upon the moving stone. Sometimes, as usually with jars, globes, etc., no holder at all is used, the article being held and pressed by hand. This requires considerable muscular exertion and is rather slow, as only one article can be ground at a time.

To lighten and hasten the work the use of a mechanical holder naturally suggested itself. The most common type in use at present consists simply of a series of flat arms radiating from the axis of the stone, and passing close to the grinding surface. Each of these arms contains a series of holes into which are inserted the articles to be ground. Small weights, such as bags of shot placed upon the upper side of the article, give the necessary pressure.

The operator, in attending this type of grindstone, has to place the articles in the holders, adjust the weights or springs, and remove the ware when ground. Sometimes one person both fills the holder and removes the finished ware. Sometimes two persons attend a machine, one "feeding" and one "removing." In either case the output per person is much greater than with the straight handworker.

The holder method is used chiefly with the bottom grinding of pressed tumblers. Edge grinding for large ware is commonly done by hand without holder of any kind; for tumblers it is now usually done by means of the so-called chuck grinder.

Chuck machines are of several types, but the differences between the types are not great. The one in widest use consists of a series of three or four small circular stone wheels, each with an attached holder or chuck. Each chuck is arranged to hold a tumbler in such a position that, when the weight which moves the chuck is released, the open rough edge of the tumbler is brought into contact with the grinding surface of the stone. The work of the operator is to place the tumblers in the chucks, manipulate the weights and controlling levers, and when the ware is sufficiently ground remove the tumbler and repeat the operation with other tumblers. As all the wheels are utilized simultaneously the operator is busied constantly.

The older style chuck machine has an unjointed chuck or holder and the operator in inserting the tumbler must grasp it by the rough, sharp edge. Because of this danger operators at such machines usually wear heavy leather gloves. In some cases they wrap a number of thicknesses of cloth around the right hand in such a way as to protect the palm and yet leave the finger ends free. Even then they do not entirely escape serious cuts. The improved machines avoid this danger by using a two-piece chuck, opening and closing on a hinge. By means of this the tumbler can be inserted in the holder without its being necessary for the operator to grasp it by the rough, sharp end.

The grinding method employed in one establishment calls for special comment. For many years the usually circular stone was here in use, but recently there was substituted a wooden wheel on which is fastened a plain iron disk. Also the position of the wheel was changed and the wheel swung on a horizontal axis like an ordinary knife-grinder's stone. The operator in grinding grasps the tumbler by the bottom in the left hand, puts a little wet sand into the tumbler with the right hand, and then presses the rough edges of the glass against the revolving iron plate.

The position is very strained. On the horizontal flat stone the article rests naturally upon the grinding surface and what pressing is necessary by the operator is downward, as upon an ordinary table. With the perpendicular iron wheel, however, the tumbler must be pushed against the grinding surface and in consequence the arm and wrist which do the pressing be kept in a position of severe muscular strain. To relieve this somewhat the operators, who are all women, wear tight bandages about their left wrists. Also in case of breakage the danger from cuts is more imminent than with the older method. The operators, however, wear no gloves or other protective devices.

The claim for this method of tumbler grinding is that it is economical, chiefly because of a lesser breakage. On the whole, however, such a method of tumbler grinding seems laborious and unnecessarily painful to the workers. The economy, if any, is certainly too small to compensate for the increased burden on the women employees. This is particularly true as there is on the market, as already described, machinery which does the work with perfect satisfaction and without excessive breakage.

With the exception of the iron-disk method just described, the work of grinding light ware need not be very unpleasant for women. The dirt, especially in hand grinding, and the constant standing are the most disagreeable features. Hand grinding is necessarily somewhat dirty, owing to the use of wet sand which, on the turning of the stone, splashes upon the person of the operator.

Almost without exception grinders, both hand and machine, stand while at work and stand constantly. Such standing, however, seems necessary. From the nature of the work seats can not well be supplied and there are few classes of grinding in which sitting would not greatly handicap efficiency.

Both men and women are engaged in the occupation of grinding, but here, as is so frequently the case in other occupations, the two sexes are rarely engaged in handling the same class of ware. Tumbler grinding and the grinding of most cheap, small articles is everywhere done by women (rarely by children), whereas heavy ware and that of a fine character is nearly always assigned to men.

The speed rate of work can perhaps be best understood from an extract taken from a schedule for a typical establishment where machine chuck grinding is done. The agent reports:

"The grinders work with practically automatic machinery, which needs only to be set at gauge and fed. The machines are set by men. They are started and stopped by foot pedals which operate belt shifts. Each girl operates three machines. The tumbler is placed in a socket head, the top of the tumbler, or rough, cut-off edge, sticks out; then a grinding disk is brought up tight against it by means of a belt shift, and the machine put in motion; this grinds the glass off the top of the tumbler to a level edge. A jet of water plays from a tube upon the point of grinding contact. The capacity of the machine, as stated by its manufacturer, is 1,300 per day of ten hours. This capacity is never reached in this plant. The work is piecework; rate 75 cents per 100 dozen (1,200) for glasses under 5-ounce capacity, 85 cents per 100 dozen for glasses from 5-ounce to 10-ounce capacity, and $1 per 100 dozen for over 10-ounce tumblers. Beginners are paid 67 cents a day, and put on piece rates as soon as they get where they can earn more. The pay roll shows one full-time worker earning as low as $6.65, the next lowest earned $8.20, the highest, $10.70 for a week."

GLAZING.

Grinding leaves the edge of an article rough. To reduce this roughness and secure a final polish the ground edge is glazed by exposure to a flame.

The glazing apparatus in most common use for tumblers is in the form of a revolving table rimmed with a series of cups. Part of this table is covered with a hood, under which there are a series of small gas jets. The whole is so adjusted that a tumbler, when placed bottom downward in one of the rim cups, is carried by the revolution of the table under the hood and the edge of the tumbler brought immediately under the flames. The cup or receptacle has an independent revolving motion considerably greater than that of the table. The heat of the flames is sufficient to slightly melt and round the edge, but not sufficient to affect the body of the glass. When the tumbler has completed the revolution and emerged from the hood it is removed and another put in its place. The glazing occurs so quickly that the table can be kept almost constantly revolving, the cups being continuously filled and emptied. One person may attend a machine, putting in and removing all the ware, but not infrequently two persons divide the work—the one feeding, the other removing.

The above method of glazing, which may be known as the disk-machine method, is almost everywhere used for paste-mold tumblers and goblets. For cheap pressed tumblers, lamp chimneys, and globes a more economical system has been devised. This is known as the conveyor method, and the device used resembles in its main features an ordinary annealing leer. That is to say, in place of the revolving table of the preceding method there is used an endless conveyor passing through a long leer-shaped furnace. Within this there is a series of flames adjusted to play on the tops of the articles as they are carried through on the conveyor. Emerging glazed at the other end the articles are removed by hand, or, in a few places, transferred automatically to another conveyor and by it carried to the persons who do the sorting and selecting, or in case of heavy pressed tumblers into a receptacle from which they are taken to the leers.

When the glazing is done in the blow room, and this is commonly the case with cheap pressed tumblers, boys or men are employed exclusively at the work. More frequently, however, and always with the disk machine the glazing is done in the finishing department, and then the work employs chiefly women. In a few places men are found working side by side with the women, but their total number is small.

With both the disk and the conveyor machines the operators may sit or stand at will. The work requires no heavy lifting and is rarely conducted at an uncomfortably high speed. The two disagreeable features of the work are the odor and the heat. These vary in intensity from factory to factory, but are always present in some degree. In a few factories, where the glazing machines are poorly adjusted and the flow of gas badly regulated, the heat of the operator's position is very painful, especially in the summer season, and the odor is usually sickening.

In addition to the machine methods of glazing, as above described, occasional use is still made of the earlier method of simple hand glazing. To do this work by hand, however, is slow and costly, and with the possible exception of special ware or heavy lead glass tumblers (for cutting) the machine is just as effective. During the course of the present investigation hand glazing was met with in only one important factory.

In hand glazing the tumbler is placed in a long handled snapping iron, such as is used in the blow room, and by means of this inserted into the flame of a small oven. By careful turning and manipulation of the iron the edge of the tumbler may be quickly glazed. Men are used exclusively at the actual work of glazing, but girls are used to place the unglazed tumblers in the snapping iron and to remove the ware when finished. These girls stand constantly, although there is not the slightest reason why their work should not be so adjusted that they might sit all the time if they so desired. Their work does not require them to move from place to place, and they could perform their duties with perfect satisfaction while sitting.

When glazing is done on a time basis the occupation pays $4 or $5 a week. When done on a piece rate glaziers earn from $7 to $8.50 per week. In one factory where the piece rate was 35 cents per 100 dozen, the output varied from 300 to 350 dozen per day. In another plant where the piece rate varied with size and quality of ware, about the same volume of work was done. That is to say, women working on 10-ounce tumblers at a piece rate of 50 cents per 100 dozen would do from 3,100 to 3,200 a day; while women working on smaller whisky glasses at 31 cents per 100 dozen would do 3,900 in a day, or an average of six and a half glasses in a minute.

DECORATING.

The operation of glazing brings the tumbler to a marketable condition. At this stage, however, it is perfectly plain and, although there is a considerable demand for plain tumblers, the demand for decorated goods must be met. This demand for decoration is of course not confined to tumblers. It is even more insistent with other varieties of tableware, and especially with shades. There is no limit upon the character of such elaboration. It may vary from the thin line circling near the top of a tumbler to the elaborate floral painting on a lamp shade. New varieties of elaboration are being constantly introduced, and there is hardly a factory which has not some form of decoration peculiar to itself. It is impracticable to describe all these processes in detail, nor does the number of persons engaged in many of them warrant a special treatment.

Eliminating minor differences and disregarding occupations of small membership and no special interest, the remaining occupations will be discussed in some detail. Sixteen per cent of all women in the glass industry are occupied at decorating in some of its many forms. In character and difficulty of work, however, these several occupations bear little resemblance. In some, such as hand decorating, the work is light, attractive, and well paid; in others, such as sand blasting, it is physically disagreeable and very harmful to the operative.

There are in common use four main principles of glass decorating: Sand blasting (abrading the surface by means of a blast of sand), acid etching (abrading the surface by application of hydrofluoric acid), cutting by stone or metal wheel, and painting and enameling in color. These are the four basic methods; others are merely variations.

SAND BLASTING.

The usual sand-blast apparatus is very simple. It consists of an inclosed box with a small opening at the top. Pipes carrying sand under compressed air or steam pressure lead into the bottom of this box. When the pressure is on the only escape for the sand and air is through the opening at the top and through this escape the sand pours in a very forcible blast. If a piece of glassware is held in this blast the escaping sand will chip away minute particles of glass, breaking the surface, or "fire polish," until the surface assumes a milky, opaque appearance, such as is possessed by the so-called "frosted" electric-light bulb. The whole surface of a tumbler or other article may be easily frosted, therefore, by simply holding it in the blast. In order to secure exact patterns, however, those parts of the surface which it is desired to leave clear must be protected from the action of the sand. For this purpose there is provided a metallic plate, in which the desired design has been cut. This plate is made larger than the tumbler, and when placed around the tumbler protects all the surface of the glass except where exposed through the stenciled cuttings. The tumbler, carefully placed in its holder, is then placed directly above the blast opening and the controlling valve opened. Those portions of the glass that are exposed through the perforations in the metal are chipped and roughened by the uprushing sand, but the covered portions of the glass are unaffected. The result upon the tumbler is a durable opaque figure, corresponding to the design.

Fine sand forced at a pressure sufficent to abrade glass necessarily rebounds from the glass and stencil and tends to scatter broadcast. The more recent sand-blast machines have proper hoods or exhausts to capture this rebounding sand and carry it safely off. A few, indeed, are semiautomatic, the operator placing the article in an inclosed box and the blasting being done entirely out of view. These types may be harmless, but they are few. Most of the machines in use are of the open type previously described. Of these the great majority have either no exhausts or very inefficient ones. As a result the escaping sand and glass particles pass freely into the room and fill the air. Standing before one of these machines the operator receives in the face the full force of this dust stream. Nearly all the women employed at the work complained that the dust caused painful irritation of the eyes and throat. The dust is extremely fine, fine enough to hang suspended in the air for a considerable period; and there seems no reason to believe that dust of such a pulverized, light character should not be conveyed directly to the lungs.

The evil effect of escaping sand is accentuated in many places by the use of undue pressure. It appears that sand expelled under a pressure of 25 pounds, or possibly even less, is just as effective for sand-blasting purposes as when expelled under higher pressure. Nevertheless nearly all sand-blasting machines are operated under a pressure of well over 30 pounds, some as high as 100 pounds.

A further feature of sand blasting, as the work is almost always done, is the constant standing of the operators. It is the general custom for sand blasters to stand while at work, and it is only very rarely that seats are even provided. There is, however, no reason for this constant standing. The work does not require it, and with possibly a few changes in the height and adjustment of some of the machines in use it would be perfectly feasible for the workers to sit at least part of the time. Aside from this constant standing the work requires little muscular strain. This necessity of standing combined with the escaping sand dust renders the work of sand blasting, at least at the old uncovered type of machine, particularly harmful to women. Their presence in the work is, therefore, to be unhesitatingly condemned. It is purely a matter of wages, not of efficiency. For handling small ware, such as tumblers, women are as efficient as men, but no more so. On heavy ware men are distinctly the more efficient, and are everywhere employed at this class of work.

An extract from a report of a field agent will give an idea of the speed, rate of pay, and the impression made upon the observer. The factory reported is one in which the sand-blast apparatus is particularly crude.

"It is piecework, the rate being one cent a dozen; there is one girl, a beginner, working at a day rate of 67 cents. The pieceworkers earned, in last pay-roll week, $7.80 a week of 56¼ hours, doing 13.7 dozen, or 164.4 pieces an hour. It is work which, under the conditions found here, no one, male or female, should be permitted to do."

DESIGNING IN WAX AND ETCHING.

The same kind of decoration that is accomplished by means of the sand blast may be also accomplished by the use of hydrofluoric acid. Sufficient exposure of glass to the acid itself or even to its fumes will cause surface etching, i. e., the eating away of the surface of the glass until the affected part is rendered lusterless and opaque by the destruction of the "fire polish."

If the whole article is exposed to the action of the acid the entire surface will, of course, be equally affected. This etching of the entire surface is known as "frosting" and is frequently used with electric light bulbs and occasionally with lamp shades. It is more usual, however, to confine the etching to exact designs. To do this it is necessary to protect the blank portions of the designs against the effects of the acid. Such protection is obtained by applying beeswax, or some similar refractory substance, to those parts of the surface of the glass which it is desired should not be affected by the acid.

For practically all purposes the work done by acid etching is superior to that done by sand blasting. The former will do any class of work possible to the latter and is also adapted to several classes of work to which the sand blast can not be adapted. Not only can more intricate and delicate designs be obtained with wax than are possible with the metal stencil, but also the resultant etching is softer and of a better tone.

In all acid etching there are two distinct stages of work with corresponding separation of occupation. There are, first, the preparation of the glass with the design in wax, and second, the immersion of the article in the acid bath. There are, moreover, two methods of preparing the design in wax upon the surface of the glass. The first is to cover the entire surface of the article with wax and then, with a stylus, to trace the design in the wax. The second method is to stamp the prepared design directly upon the glass, the ink used being refractory to acid. The first method is commonly known as needle or stylus etching and is used with simple geometrical designs such as appear on many tumblers. The second is known usually as plate etching and is used with all elaborate designs.

ETCHING BY NEEDLE.

The first step in needle etching is the covering of the surface of the article with wax. This is usually done by simply immersing the article in bath of melted paraffin. A tray and rubber gloves are used for the purpose, and the work, although rather unpleasant, is not harmful or dangerous. It is done almost exclusively by women. The article having been removed from the bath is allowed to dry, when the design is traced in the thin coating of wax. This tracing may be by hand or machine. In the first case it is usually free-hand work, the operator with a stylus copying a prepared pattern. The hand method is, however, now very uncommon, machines having been successfully adapted to the work.

The machines are all of the same general type. The waxed article—a tumbler, to keep the example—is placed in normal position upon a revolving holder, and there firmly held by a clamp or weight. A series of blunt needles approach the tumbler, so arranged that when the tumbler is revolved their points are forced against the glass. These needles are set at various angles and each is adjusted to work in a definite but complicated manner. The sharp points of the needles cut through the covering, leaving the glass exposed along the traced lines. The tumbler is then ready for its acid bath.

The occupation of needle etching is filled almost exclusively by women and children. The adjustment of the machine to pattern requires some skill, and this is commonly done by a male foreman. Once adjusted, however, the tending of the machine demands no skill and little intelligence. The operator has merely to insert the waxed article in the clamp, start the machine, and remove the article when finished.

The work need not be physically hard. The machine may be, and usually is, so adjusted that the operator may stand or sit at will. There is no heavy lifting and the work is not dirty. In a few factories, however, the operator's comfort is disregarded. The machines are so constructed that the operators must stand all the time, and the whole mechanism is so primitive and clumsy that the operation of the levers becomes hard physical work. Such disagreeable conditions are exceptional in the industry, but they need not exist at all.

A special variety of needle etching is known as pantograph etching. The principle is that of the ordinary pantograph, several drawing needles, however, being used instead of one. The tumblers or other articles having been waxed, are placed in a series of holders, in front of each of which there is a lever tipped with a drawing needle. These levers are so adjusted that when the operator moves a tracing needle at one extremity of the mechanism the drawing needles at the other end are moved over the series of clamped articles in perfect unison with each other and with the tracing needle. Thus, when the operator at one end traces out with one needle lines of a prepared figure, the other needles are drawn over the waxed article and cut the same figure. The use of the pantograph permits of more elaborate designs than does the ordinary needle etching machine. The field of the latter is confined to straight lines and regular curves, whereas with the former mechanism floral and other more intricate designs are possible.

The character of the operator's work with the pantograph is somewhat different from that of the needle etcher, but is on the whole of about the same skill and difficulty. Sitting is always feasible. Pantograph etching is not widely used and the total number of persons engaged, almost entirely women, is very small.

ETCHING BY PLATE.

By means of the so-called "plate etching" designs of the utmost elaborateness and delicacy may be obtained. The process of "plate etching" for glass is, in its first stages, quite similar to the process of engraving an ordinary visiting card. The desired pattern having been engraved by hand upon a metallic plate, ink is spread upon the surface and rubbed in such a way that the engraved indentations remain filled with ink but the surface is left clean. A sheet of tissue paper is then spread upon the plate and brushed down. This causes an ink impression of the design to adhere to the thin sheet of paper.

From there the design is transferred to the glass by simply pressing the paper, inked side downward, at the proper place and rubbing carefully. When the paper is now removed by wetting, the design remains upon the surface of the glass.

Frequently the design is only desired to cover a portion of the field. In such case the surface outside the design, together with the interior of the article, and such other parts as it is not desired should be etched, are painted over with soft paraffin.

The article is now ready for the acid bath. As the ink used is refractory to the acid the ink-covered portions of the design are not affected, nor are those portions of the article outside the design which have been painted with paraffin. Those parts of the design, however, which are not inked, are quickly affected by the acid and the pattern appears sharp and distinct.

The original engraving of the plate is work requiring considerable training and ability and is everywhere done by men. The printing of the design from the plate on the paper is also everywhere done by men.

With the exception of acid dipping, the operations following the first printing of the design from the plate on the paper are almost everywhere performed by women. These operations are several—placing the paper on the glass, rubbing it carefully down, so that the transfer will be perfect; removing the paper; touching up with paraffin the portions of the surface outside the design, etc. In some factories this work is thus minutely subdivided. In others there is no such subdivision, the same person performing each of the suboperations in their order. In any case, these suboperations differ very slightly in skill, pay, or general character. They are easily interchangeable and are usually classed under the general occupational name of "transferring." They are so classed in the tables of this report.

The whole work of transferring is light and agreeable. The workers may sit at all times, are not in a constrained position, lift no heavy weights, and, from the somewhat artistic nature of the work, can not be unduly speeded The odor of the ink and paraffin is not offensive, and there is no danger of personal injury from breaking glass. On the whole, therefore, the work in itself may be regarded as fitting for women, and in all the establishments visited the conditions under which the work was being done were found to be favorable.

ACID ETCHING.

After the surface of the glass has been prepared with the desired design, the article is exposed to the acid, either by bodily immersion or by simple exposure to the fumes. In either case the work constitutes a distinct operation and is commonly performed by a special set of workers. There is unfortunately no special occupational name covering all these workers. In the proper sense of the word they are the real etchers, although in the trade that term has been distorted to include forms of work in which true etching does not enter. When the ware to be etched is immersed in a bath of acid, the operatives are commonly known as acid dippers. When, however, there is no actual dipping, simple exposure to the acid fumes being used instead, the operatives have no more distinctive name than that of acid workers. Therefore, in lieu of a better occupational name the broad term "acid etching" will be used to cover all persons who expose the glass to the acid.

Women are not often employed in this work, but because of the fact that they are occasionally so employed and that the occupation is a peculiarly disagreeable one, it seems desirable to describe it in some detail. In its extent acid etching is of considerable importance, as it is not only used after transferring and needle etching to make permanent the waxed design, but is also used extensively as a means of "frosting" various varieties of shades. Incandescent bulbs, lamp chimneys, and globes are often so treated in order to soften their light. In frosting the article is dipped bare into the liquid or exposed immediately above the acid. In weaker solution acid is also used for polishing glass. The exterior of cut-glass articles, for instance, is washed in an acid bath in order to cleanse the surface and to intensify the sparkle of the facets.

The fumes of the hydrofluoric acid used in the work are extremely pungent and irritating to the throat and nose.(a) It is extremely disagreeable to inhale even the weaker fumes, and the breathing of such fumes as come directly from a strong bath of the acid is impossible to most persons. This being the case, it would seem most important that every effort should be made to surround the work with ample protective measures. As a matter of fact, however, very few of the factories visited where this work was being done made even a serious effort to avoid the evil, and only one made really adequate provisions.

The arrangement in this exceptional factory was described by the agent as follows:

> The etching is done within two large boxes, each of which is fitted with a sloping roof terminating in a large exhaust pipe. A steam-pipe connection is made between this exhaust and the factory furnace, in order to obtain a draft. Each box is divided into three

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[a] The effects of hydrofluoric acid are violent irritation of eyelids and conjunctiva, cold in the head, bronchial catarrh with spasmodic coughing, sores at entrance of nose, of gums, and mucous membrane of mouth, also painful ulcers on epidermis, corrosion, blisters.

compartments, so that acids of varying degrees of strength may be used at the same time. Each compartment is fitted with a sliding door, which is lifted to permit the insertion or removal of the ware.

The articles to be etched are arranged in shallow wire baskets and placed in the box, where they are subjected to the acid for varying periods. The acid used is very dilute, so that the work proceeds slowly. A dial on each door is set by the etcher at the time he inserts the basket of ware in order that he may regulate with exactness the period of exposure.

When the fixed time of exposure has elapsed the ware, now etched, is removed and immersed in a large vat of water for rinsing off the acid. After rinsing, the articles, still in their baskets, are hung on an endless chain and pulley device, which dips them at intervals into tubs of boiling water. By the time the ware has emerged from the last of the water tubs, the paraffin has been entirely removed and the ware is ready for wiping and placing in stock.

The steam exhaust of the boxes works perfectly. There is little or no trace of acid fumes in the outer room. The etcher does not have to touch the acid or inhale its fumes while inserting or removing the ware. Also above the tubs, in which the articles are afterwards washed, a large wooden hood is placed and serves to remove most of the steam. The whole arrangement is excellent.

The etching apparatus in use in this plant has been described in some detail as an example of a cheap, effective means of avoiding most of the evils usually incident to acid etching. In addition to this one factory there are two others where the acid etching, although done with open vats, is confined to a separate room and reasonably good respirators, etc., are provided. Elsewhere, however, the work is uniformly disagreeable and harmful. In each case either the hoods and respirators are inefficient or the room in which the work is done is badly ventilated and not sufficiently separate from the workrooms.

Acid dipping is almost everywhere regarded as a work for men. In a few places boys were employed, but in only two glass establishments and in two electric-lamp establishments were females regularly so employed. In several other establishments, however, women do this work on occasion. In one of the factories where the occupation was a regular one for women the room used for the work was about 20 by 40 feet. Along the wall was a continuous low shelf, on which at intervals were shallow tanks containing a solution of ammonia and hydrofluoric acid. Over each tank was a hood, from which a pipe led to the outside. The hoods, however, were about 2 feet above the tanks, and the draft was not sufficient to exhaust the fumes at all adequately. The girls, standing beside their respective tanks, picked up the shades with their bare hands, and placed them in the acid bath. After a half minute or so the shades were removed, by hand likewise, and placed on one side for the washers. At the time of the visit to this factory the girls working at this work did not have to bring their hands into direct contact with the acid, as the shades being treated were of the half-frosted type, and in consequence had to be dipped in the bath only half way. Their hands and arms, however, were unprotected from the fumes. These employees experienced frequent trouble with their eyes, and several former employees had been so badly injured by the fumes that they had been compelled to stop working entirely. The work is almost necessarily done standing.

FLUTE CUTTING.

A common form of glass decoration, particularly for tumblers and water bottles, is that of fluting the bottoms and sides. With the tumblers these flutes often appear as a continuous series of small flatly ground surfaces encircling the lower portion of the body. Often, however, such flutes instead of being flat may be in the form of sharp, deeply cut perpendicular incisions in the glass. Cheap "fluted" ware can be made in common iron molds, or in pressed ware, the design being molded in the glass at the time of making. This is not possible, however, with the finer grades of tableware and shades. All such ware is made in paste mold, and, as one of the requirements of paste-mold ware is that the article shall be constantly revolved in the mold while being blown, the exterior surface will necessarily be perfectly smooth. If fluting or other decoration is desired, it must be added afterwards, and by means of a grinding process of some kind.

The fluting of tumblers is generally done by hand, the article being simply pressed against the revolving stone in such a position that only the desired portion of the lateral surface is ground. The operator, with rare exception, sits while at work, the stone on a horizontal axis being supported on a table arranged at a convenient height. Hand work is entirely free hand, although with heavier ware a frame support must be used to carry the weight of the article. Also, with very heavy ware the work may be done on a flat stone, revolving horizontally, and in this case the operator must stand.

Both men and women are employed at the occupation of hand fluting, but as is so often the case, the two sexes are rarely engaged in doing precisely the same grade of work. The men are assigned the heavier pieces, especially those which require the flat, horizontal grinding stone, whereas the women receive the lighter work, especially tumblers. Thus, the character of the work done by the women generally permits them to sit, while the men fluters usually stand. The few children who are found engaged in fluting are beginners, doing an inferior grade of work.

The use of a grindstone moistened with sand or emery and water results in the splattering of some dirt upon the person of the operator.

Otherwise, flute cutting by women is free from any particularly unpleasant features. The women usually sit at the work, have no heavy weights to lift, and undergo no particular strain of any kind. Hand fluting requires considerable skill and practice, probably as much as any occupation in the glass industry as yet opened to women.

Machine fluting is employed chiefly with small ware, such as whisky glasses, although in a few establishments the ordinary flat flutes on tumblers are cut by machinery. The usual machine for fluting whisky glasses contains four chucks, each chuck accommodating one glass. The glass is clasped tightly in the chuck and the side at the proper place is pressed against a revolving stone. The grinding itself is automatic, the operator's work being confined to feeding the machine. In one representative establishment each operator attends three machines, that is, twelve separate chucks.

Machine fluting requires no training or skill, but it does require considerable physical endurance. The chucks grind rapidly; the operators, as a rule, must be constantly on their feet and, while there are no heavy weights to lift (the fluting machine not being adapted to large-sized ware), there is much physical strain on account of the rapidity of the work. In one factory the work is rendered unnecessarily disagreeable by the use of too much water on the cutting wheels. Because of this the work becomes extremely dirty and unpleasant.

The occupation of machine flute cutting is monopolized by women. No men and only three children were found engaged at the work. Usually one woman operates three machines, although formerly one person operated two machines and occasionally this is still found to be the case. The capacity of the machines ranges from 85 to 100 dozen per day of ten hours. When employed by the day women earn $1.25 per day. Piece rates for machine cutting on automatic machines are usually 1½ cents per dozen tumblers, and a rapid worker will do 120, or 10 dozen, an hour, earning $8.25 in a 55-hour week.

COLOR DECORATION.

In the trade the term "decorating" is used in many senses. Commonly, however, it is used to cover only those forms of decoration which are obtained by the use of external color applications—painting, gilding, enameling—in other words, those forms of decoration which are superficial in character and not obtained by modifying the shape or texture of the glass itself, such, for instance, as is done in fluting, grinding, etc. The word itself, however, does not suggest any such distinction, fluting being just as much a form of decoration, in the usual sense of the word, as is painting. Therefore, in order to avoid ambiguity the term "color decoration" is employed in this report in place of the simple word "decoration," as that word is used in the trade.

The possible varieties of color decoration are almost innumerable, but for purposes of description such varieties may be limited to two general classes—painting and enameling.

PAINTING.

The painting of glassware is limited almost entirely to lamp shades and a few varieties of table dishes. The elaborateness of the painting may vary from the simple stippling of a saltcellar to the elaborate and difficult design upon a fancy lamp shade. In the same degree, the skill of doing the work varies. The simple work requires little training or experience; some of the more elaborate work demands the hand of an artist.

On the better grades of glassware the painting is done entirely free hand. Men monopolize the work, none of the women scheduled being hand painters of the first class. It is, however, an occupation for which women, if practiced, would seem peculiarly well fitted, as the work requires delicacy and intelligence rather than strength or endurance.

Most of the painted ware upon the market, however, is not skilled free-hand work. The color is either solid, which requires no skill in its application, or if there is a patterned design such design is first stamped in outline. The painting is still done by hand, but the presence of an outline to be followed greatly reduces the skill necessary to a proper performance of the work. Particularly is this true if the painting is in solid color, such, for instance, as is the very common form of decoration known as "gold banding." In all this solid color and outline work women and girls are extensively employed.

In painting glassware the paint is usually applied directly to the glass as originally made, the paint, after drying and baking, adhering firmly to the smooth surface. In the case of gold decoration, however, a special treatment is necessary in order to prepare the glass for the retention of the gold. The older method of thus preparing the glass is known as "mudding." The process is as follows: The article to be gold painted is plastered over with clay and then heated by passage through a leer. The heat causes the surface of the glass to be roughened by innumerable minute cracks. This accomplished, the mud is washed off and the gold applied according to the desired design. The roughened surface of the glass gives an opportunity for the gold to obtain a firm hold, and if the finished article is now heated the adhesion is rendered so perfect that the gold becomes almost as lasting as the glass itself.

The same result that is obtained by mudding may be obtained in other, and in some respects better, ways. Acid is one alternative, for by exposure to the proper acid fumes the surface of a glass article will be roughened in much the same manner as by mudding. Another alternative is the use of crystalline bluestone. This is applied to the surface of the glass and subsequent annealing roughens the surface, as does mudding. The bluestone is applied in the blow room. A box of the powder is placed alongside the finisher's bench and into this box he dips the article being made. As the glass is still hot from the furnace the powder adheres closely, and when later heated in the leer has a very similar action upon the glass surface as has the mud of the older process.

With the bluestone and acid methods of preparing the glass for gold decoration women or girls are not used in any of the establishments visited. These methods have, moreover, almost supplanted the old mudding process, but mudding was still being done in three of the visited establishments and then almost entirely by women.

Such work is very disagreeable. The ware must be dipped in a caldron of the heavy mud or the mud plastered on with brushes, and later, when it has been hardened in the leer, the caked mud must be rubbed or washed off. It is hard, dirty, unfeminine work.

In the higher grades of free-hand painting, those in which men are employed, the rate of pay is high and the speed of work is low. In the cheaper forms of painting, those in which women and girls dominate, the reverse is true. The pay is by piece, and the rate is so low that a worker must attain an almost incredible speed in order to make $1 to $1.50 per day. To take a specific example from one representative establishment: The article considered is a 4½-inch bellied nappy. The edge is scalloped and the decoration is in gold paint applied to the edge and also to the flange on both inside and outside for a depth of a quarter of an inch. The total surface to be covered is, therefore, approximately 10½ square inches. The rounded hollow shape of the article requires that its position must be constantly changed while being decorated. The piece rate for doing this work is such that in order to earn $8.85 per week a woman must complete on the average one article per minute for the full 58 hours per week.

ENAMELING.

The second form of color decoration, enameling, is easily executed upon glass, especially upon smooth surfaces. The common method of doing the work is as follows: The design in relief is first cut or molded upon a wooden, rubber, or metallic plate. This plate is moistened with a quick drying oil and the design transferred to the glass by simple stamping. Enamel powder is then "dusted" or sprinkled over the glass, the powder adhering only to those parts which are sticky with oil. This dusting is commonly done by means of a simple cotton pad in the operator's hand. Afterwards the articles are sprayed with an oil or turpentine preparation, and then left to dry. As the oil dries the enamel hardens and "sets." After the enamel is thoroughly hardened the surplus powder is wiped off. The design remains in enamel in slight relief. The enameling of cheaper ware stops at this stage, but to render the enamel more durable finer grades of ware are now "fired." Firing consists simply in passing the cold enameled ware through a heated furnace or leer, the heat of which causes the enamel to become partially incorporated with the glass.

There are other methods of enameling, but all agree in that they make use of fine powders, which are "dusted" on the article, or of a liquid which is sprayed, or of both.

Men are everywhere employed to make the original block designs for enameling, but women are commonly used for stamping the design on the glass, for sprinkling the powder upon the oil ("dusting"), and for removing the surplus powder ("redusting"). Rarely they are used in the work of spraying. Spraying excepted, all this is physically light work and the workers can readily sit at all times. The disagreeable feature, and one that in some factories becomes a positive evil, arises from the use of the enameling compounds in the form of either powders or sprays in such manner as to permit the air to become filled with the dust. These enameling compounds contain various ingredients, but lead and arsenic are common to nearly all. This being the case, exhausts seem indispensable to the work.

CUT-GLASS MAKING.

Cut glass is, of course, but one variety of decorated glass, but from the commercial as well as the artistic point of view it may be regarded as a separate product. One distinguishing feature of cut glass is that it is made from a very high grade lead glass, such as is rarely used for other varieties of glassware. Glass of this quality is very expensive; the making of cut-glass "blanks"—the trade name for the glass objects previous to their cutting—is, in consequence, limited to a few factories which usually restrict themselves to this one class of product. Some of these factories cut glass as well as make the blanks. Others do only cutting, the blanks they use being manufactured elsewhere.

In describing the process of glass cutting it is necessary to distinguish two kinds of blanks— the "smooth" blank and the "pressed" blank. A "smooth" blank is, as its name indicates, perfectly smooth upon its surface. The design must be cut in the solid glass, and the depth of the fissures (or cuts) renders this a slow task. The "pressed" blank was introduced to shorten this labor. Here the blank, instead of being even and smooth upon its surface, has its pattern roughly molded into the glass at the original pressing of the article. All the fissures of the pattern are thus already in the glass. To convert such a piece into "cut glass" each fissure must be further cut with a sharp grindstone. This gives to the incisions a peculiarly sharp sparkle, the possession of which is the beauty of cut glass.

The preparation and cutting of a "smooth" blank, however, requires considerably more work than that of the cheaper "pressed" blank. The former passes through several well-differentiated processes, which may be described in order of their sequence.

1. *Marking.*—This consists in outlining on the glass the desired design as a guide for the cutters. The work is done with a fine brush, red lead of the consistency of thick ink being used as the marking substance. As glass cutting necessarily proceeds slowly one worker can mark glass for a large number of cutters. The total number of markers is therefore very limited.

2. *Roughing.*—After marking the article goes to the rougher for the first cutting. The rougher, with the red lines as guides, holds the smooth blank against a sharp-edged, rapidly revolving wheel, which is constantly supplied by an overhanging tube with water and sand or pumice, sometimes even with emery. The friction of the wheel gradually grinds away the glass in sharp-lined fissures.

3. *Smoothing.*—When the roughing is done the article appears very much as it does in its final shape. But the cutting is as yet too rough and uneven. It must be smoothed by again grinding the incisions, this time with a stone of softer character. This grinds off the unevenness left by the hard roughing wheel and makes the incisions smooth. Also the smaller and finer lines are now put in, their shallowness rendering the preliminary roughing unnecessary. The cutting of pressed blanks begins with the smoothing stage. As the design is already fully impressed upon the glass, there is no need for marking or for roughing. The pressed incisions are simply ground with the smoothing stone in order to give the cuts more sharpness of outline.

4. *Polishing.*—After smoothing, the article, whether originally a smooth or pressed blank, is finished so far as concerns its outline. There are employed, however, a number of polishing operations in order to give the glass a more perfect finish. This polishing is commonly done by holding the glass against revolving wheels of wood, cork, or felt, or against revolving brushes to which preparations of red lead, putty powder, and other substances have been applied.

5. *Acid polishing, waxing, and acid dipping.*—As a final preparation for the market, the better grade of cut glass is now given a final polish by immersion in a weak solution of hydrofluoric acid. In

the case of most ware this polish needs to be given only to the exterior surface, which has just been cut. The interior surface of such objects already possesses the highest polish needed, it having been "fire polished" in the very operation of blowing. The interior, therefore, needing no further treatment, is protected from the action of the acid by a coating of paraffin. The acid leaves a slight cloudy film on the glass which is removed by washing, and the object then shows a brilliant surface both inside and out.

GLASS ENGRAVING.

Glass engraving is a particularly fine and expensive form of cutting. In its making, very small copper disks are used instead of the large wheels employed in ordinary glass cutting, and the incisions are much shallower. The use of a small wheel permits the pattern to be more elaborate and at the same time more delicate than is possible with the large wheels and deep incisions. Raised designs can also be made by abrading the glass about the figure, thus leaving the figure itself in relief. Engraving is done entirely free-hand, and the engraver must be an artist.

EMPLOYMENT OF WOMEN IN GLASS CUTTING.

In the cut-glass industry women have so far been very generally employed in the subordinate branches of the work—waxers, washers, selectors, and wrappers—but only occasionally in the cutting proper, and then only in the one operation of smoothing. Men have been used exclusively as roughers and polishers, and for the work of acid dipping after waxing,

Marking is light, sedentary work, in which women are as efficient workers after a little practice as are men. The total number of markers, however, is very limited. Waxing, washing, selecting, and wrapping are occupations whose names suggest their duties. As usually performed the work of these occupations presents no necessarily unpleasant features. Selecting requires some little skill and practice, as the worker must judge finally of the character of the work and sort the good from the bad. Selecting, washing, and wrapping are commonly done standing, although there is no reason why the work should not be so arranged as to permit sitting part of the time. Waxing permits of the use of seats.

In all the distinctively glass-cutting occupations—roughing, smoothing, and polishing—women may have been occasionally employed. Only at smoothing, however, have they been at all constantly engaged. This results from the fact that smoothing is much easier than roughing and polishing. Roughing is hard physical work. The operator must press the article being roughed against a resistant wheel, and must exert great physical pressure in order to effect the cutting away of the glass in deep incisions. Polishing, on the other hand, while requiring no unusual strength, is exceedingly dirty and disagreeable. The soft powders used on the wheels and brushes are thrown directly upon the clothes and face of the operators. As some of these powders are very harmful when inhaled, the work may be immediately dangerous to health, though usually the volume of water used prevents any dry dust.

Smoothing is not as difficult or unpleasant as either roughing or polishing. As the rubbing upon the wheel is merely to smooth over the sharp lines left by the roughing process the pressure need not be great. For larger articles slings may be used, and these reduce the strain. In the factories investigated, however, women smoothers were employed exclusively on small ware, nappies, salts, etc., and mostly with the pressed variety of blanks. The smoothing of small ware is light work and where women are not used it is usually done by the boy apprentices.

There are occasional rumors of women being used as roughers and polishers, although no definite case was found of such a practice. The smoothing of heavy articles is to be similarly criticised, but the smoothing of the lighter articles presents no particularly unpleasant features as a work for women. There are no heavy weights to lift, no undue straining of the body, and the operator may sit.

The presence of women in the cutting branch of the glass industry is recent and is still generally resented by the men cutters. In one instance even the townspeople were hostile, and the women smoothers at a local factory were socially ostracised and not infrequently publicly villified as "scabs." For several years a half dozen factories have been accustomed to employ women smoothers, but there is no indication that the practice is growing. One establishment, after an experience of several years with women smoothers, was rapidly eliminating them in favor of men. It was here claimed that women had not been satisfactory as smoothers; first, because they were not as interested in their work and as attentive to it as were men; and, second, because they were less adaptable than men, and could not be changed so readily from one kind of work to another. On the other hand, a neighboring factory had recently experimented with women smoothers and was so satisfied that women were being rapidly substituted for men. In the face of this experience it is impossible to decide upon the actual efficiency of women smoothers as contrasted with men.

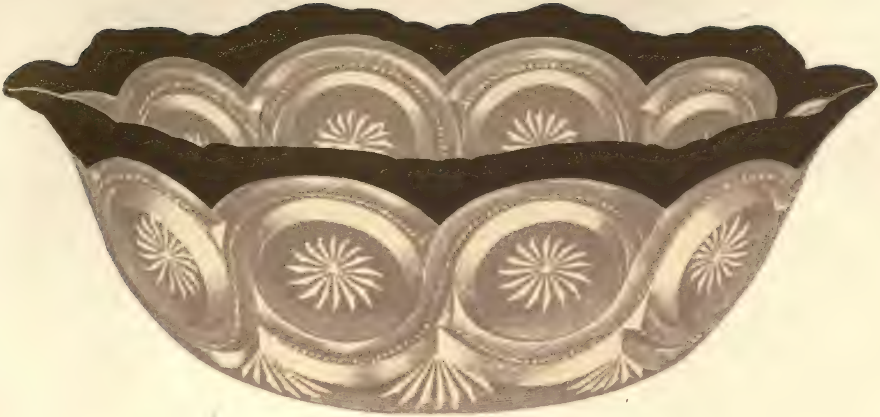
SPEED OF THE WORK.

The speed of working has already been referred to in several of the preceding occupational descriptions. This phase of the subject of woman's work is presented in more detail in the following table, which shows for several occupations, in which exact data were obtainable, the rates of pay for performing specified operations upon particular articles and the number of individual pieces finished per hour by the slowest worker and the fast worker and the average output of the group. The estimated earnings per week of 55 hours, based on the average output, is added for the purpose of showing what financial incentive a piece maker has for rapid work. The table refers solely to females 16 years of age and over and covers only pieceworkers. It is also to be noted that the table is not intended to be complete. Only those operations have been selected for presentation the work of which would be clearly evident from the names together with the foregoing descriptions. Thus, the entry showing that on the average a woman caps 773 jars an hour gives a fair idea of the speed of work, for the operation of putting a cap on a jar is so simple and so familiar.

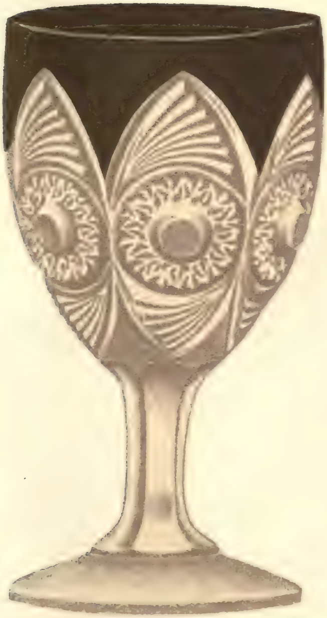
PIECE RATES PAID, OUTPUT PER HOUR, AND WEEKLY EARNINGS OF WOMEN IN SPECIFIED OCCUPATIONS IN GLASS FACTORIES INVESTIGATED.

Occupation or operation.	Article.	Number of individuals.	Piece price paid.		Output—number of articles per hour.			Estimated earnings per week of 55 hours.
			Rate.	Unit.	Greatest.	Average.	Least.	
Cutting off (by flame)	Tumblers	6	$0.25	100 dozen.	486.80	411.73	307.20	$4.72
	Tumblers	2	.30	...do...	710.34	613.63	516.92	8.43
	Tumblers	3	.25	...do...	600.00	486.00	360.00	5.56
	Tumblers	8	.36	...do...	389.67	320.33	184.18	5.28
Grinding	8,9, and 10 oz. tumblers.	3	.95	...do...	195.00	190.00	180.00	8.25
	Chimneys	2	1.00	...do...	....	109.09	....	5.00
Glazing	Tumblers	5	.35	...do...	499.84	461.98	435.79	7.41
	Tumblers	2	.50	...do...	312.00	295.00	277.00	6.75
	Tumblers	4	.38	...do...	400.00	344.00	300.00	6.00
Sand blasting	Tumblers	3	1.00	...do...	166.00	160.00	148.00	7.32
Automatic fluting	Tumblers	1	1.50	...do...	....	120.00	....	8.25
Needle etching	Tableware	2	.96	...do...	72.00	68.00	65.00	3.00
Wrapping	Tumblers	3	.20	...do...	795.00	688.00	540.00	6.30
	Tumblers	3	.15	...do...	921.00	774.00	661.00	5.32
Sorting	Pint beers	13	.18¾	...do...	853.04	714.89	614.03	6.14
	Pint beers	18	.18¾	...do...	864.00	745.28	476.00	6.40
Wiping	Tumblers	8	.37	...do...	280.10	244.12	172.97	4.14
Fitting	Jar caps	2	.20⅝	...do...	672.48	576.00	479.52	5.50
Capping	Fruit jars	11	.15	...do...	1,019.60	772.57	600.00	5.31

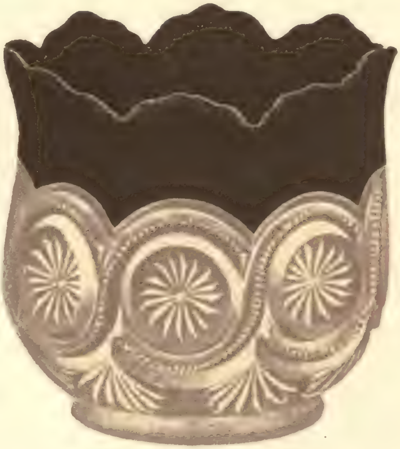
The color-decoration occupations were not included in the preceding table because of the fact that the labor involved in such work can not be conveyed in words, much less in a table. Therefore, in order to show as graphically as possible the speed maintained in the color decoration of glass, a few articles are here reproduced in picture from the sales catalogue of one of the larger tableware establishments. Articles of a simple type, and in which the decoration is of a simple character, have purposely been selected. The cuts are one-half size. The color application in each case consists of a solid ground of gold paint. The piece rates paid the women



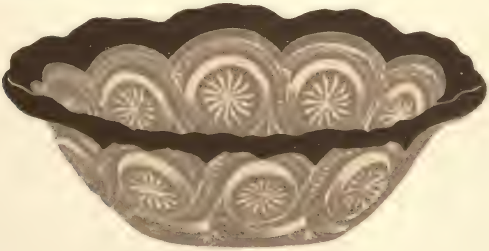
8½ inch Bellied Nappy



Goblet



Spoon holder



4½ inch Bellied Nappy

A Hoen & Co Baltimore

for this gold decoration are as follows: For No. 1, a large-sized nappy 8½ inches in diameter at the top, or practically 25½ inches in circumference, the piece rate is 7 cents per dozen dishes. For No. 2, a goblet, the piece rate is 2½ cents per dozen. For No. 3, a spoon holder, practically 4 inches in diameter, or 12 inches in circumference, the piece rate is 5 cents per dozen. For No. 4, a 4½-inch fruit or ice cream nappy, very much flared at the top, the rate is 3½ cents per dozen.

CHAPTER XII.

WORKING CONDITIONS IN THE LEER ROOM AND FINISHING ROOM AS AFFECTING WOMEN AND GIRLS.

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BUILDINGS.

The finishing room, in contrast with the furnace room, does not require and has never developed a distinctive type of building structure. The buildings used for the purpose may be of any size, height, or location. As the work requires no heavy or elaborate machinery, no special provision has to be made for power or for power transmission. Floor space and shelter are the only requirements, and these may be filled by almost any type of building.

In those cases, the great majority, where the finishing room is in the same establishment as the furnace room, the location is rarely in the congested portions of cities. The furnace room necessarily demands considerable ground space, and, for this reason, such factories tend to seek cheap land in the smaller towns and villages, or at least on the outskirts of large cities. The few exceptions to this rule are chiefly in Philadelphia and Pittsburg. It follows, therefore, that, the land being reasonably cheap, it is rarely economical to construct high buildings. Thus, many of the finishing departments are housed in buildings of only one story and very few in buildings of more than three stories. Their exact distribution upon this point will be shown in the discussion of fire escapes.

With buildings of such diverse external characteristics, considerable variation is to be expected in the matter of their habitableness, in the degree in which they offer comfortable working quarters for their employees.

Of the 66 finishing departments scheduled, 20 were housed in a thoroughly satisfactory manner. The buildings were new or modernized; the rooms ample in size, well heated, lighted by natural light, and of sufficient number to permit of a satisfactory segregation of the sexes. A brief description of a few of the best equipped factories will be suggestive upon this point. The descriptions are from the field reports of the agents engaged in the investigation.

The main building is a fine brick structure, 122 feet front on one street and 40 feet front on another. There are thirty-nine windows on each floor; three doors opening to the street; two opening to the yard, and a gangway 15 feet wide from the street to the yard for horses and teams. The floors are laid on heavy wooden joists, and each floor is divided into work rooms by brick partitions. There are two stairways connecting each story; one for entrance and use during working hours and one inclosed in brick walls for exit in case of fire and when leaving the factory. An elevator for freight only transfers the ware from one floor to the other. The floor space of the elevator is 10 by 10.

Each room is amply supplied with water for use as well as for fire protection, a 10,000-gallon water tank on the roof supplementing the city water supply. There are six water plugs with hose attachments on the first floor, four on the second, ten on the third, and ten on the fourth floor. The first floor is divided into four rooms. These are used for sorting, packing, and shipping. The second floor is divided into four rooms. The accumulated ware is stored on this floor. The third floor has four work rooms in which cutting, etching, waxing, grinding, transferring, and roughing are done. There are but two rooms on the fourth floor; one of these contains a women's dressing room, partitioned off. Grinding and roughing are done on this floor.

The decorating is done in a detached building located opposite the other buildings, from the rear. This building is a brick structure of modern design and construction. It is 100 by 60 feet, three stories high, twenty-six windows on each floor, three exits to the street, and two stairways connecting each story. The first floor, one large open space, is used for wrapping, packing, and storing finished ware; the second and third floors, which are also undivided rooms, are used exclusively for designing and decorating.

The working room of this plant occupies the undivided interior of a large brick one-story building, 145 by 85 feet on the ground and about 40 feet high. It is exceedingly well lighted, having one hundred windows in 4 by 4 openings, with swinging sashes for light, air, and ventilation. There are also forty windows lower down, in 4 by 9 foot openings, for light and air. All the ware that is formed in the furnace room is delivered by the leers into this room, where it is distributed for cutting off, grinding, and filing. The warehouse and packing room occupies all the space in a large one-story wooden structure, 225 by 45 feet on the ground and about 30 feet high. It is not adjoining, but it is connected with the working room by a gangway over which all finished ware is transferred for wrapping, packing, and shipping. Everything about the factory appeared neat, clean, and orderly.

This is the best glass factory so far visited. It is new and up-to-date in all its parts. It is a brick and stone structure over a block long and 110 feet wide, two stories high in the factory part, one in the furnace part. The furnace is at one end of the building, and even here the floor is kept practically free from broken glass. The leers connect the furnace and sorting room, which is light, airy, and ample. The basement or really first floor is the storage room and is equipped with the best devices for loading cars quickly. The floor above is the "finishing" room. Grinding stones are protected so as to throw a minimum of dirt on the workers. Automatic mechanical conveyors carry the ware from worker to worker until it is finally wrapped for packing. When a tumbler is ground, for instance, it is put on a moving continuous belt and carried to the washers, who sit and simply take the articles off the moving belt, wash or rinse them, put them back on the moving belt, which carries them to the wipers, who wipe them, put them on the belt which carries them to the wrappers, etc. Everything is new and clean. Even the floor is kept cleaned of the broken pieces of glass that cut the women's shoes in so many other factories. Immense pipes, like drums, ramify the building everywhere. These are filled with hot air in winter and keep the building warm; in summer they are kept pumped full of cold air to keep the building cool. For cooling the air there is an ammonia-salts refrigerator in the basement, and in it are coils of pipes through which the air is forced before it is sent through the building. This greatly reduces the temperature of the air. While this was primarily intended for the furnace room, it is being used for the other departments of the factory also.

The factory is of brick, modern, and of excellent construction. The furnace room is of one story and adjoins, but is completely separated from the three-story building in which the finishing rooms are located. Two 2-foot fire escapes are provided from the third floor to ground, the entrances to the escapes being kept perfectly free. Natural light is ample, no artificial light being required in any part of the building under normal conditions. Buildings fully equipped with automatic sprinklers connected with city water and emergency connection with establishment's own tank. A freight elevator not used by the women or children. The female employees are almost entirely segregated from the men and work directly under a forewoman. A large dressing and lunch room is provided for the women and girls and the toilet arrangements are excellent. The floors are kept free from all unnecessary dirt, and there is little or no broken glass in any of the finishing rooms. The normal number of women and girls employed is about seventy. On the whole this factory is the most comfortable for working purposes of any yet visited.

At the other extreme there were ten factories in which conditions were very bad. The buildings were old or uncared for, the interiors gloomy and dirty, badly heated, and insufficiently lighted; the whole atmosphere one of discomfort and unsuitability for the working of women and children.

A group of very bad, if not the worst, plants found are located in western Pennsylvania. The principal difficulty arose from the fact that the buildings were very old. One of these is described as—

A brick building, furnace room one story high, finishing department two stories high. The structure was built in 1864; the furnace end of the building burned in 1869 and was rebuilt; was again rebuilt in 1884. The part where the women work has been patched up from time to time, but never rebuilt since 1864. The first floor room is very large, with no partitions except one for the sand-blast room. The different departments have portions of the space set off for them. The floors are bad and covered with broken glass. Boxes and clutter gave an appearance of general obstruction. Three rough old wooden stairways lead to the second floor. There is one 2-foot iron fire escape leading from the second-story window into an alley in the rear.

Another of this group of factories is thus described:

This is an old building unfit for use in its present condition; a musty old fire trap.

Of another plant in the same part of the State it is said:

Conditions are bad. Factory filled with unskilled, immigrant help, who can not understand each other or the foreman. Each is shown how to do his or her single part and left to do it without communication with others. This partly accounts for the appearance of crowded rooms in the factory as a whole. Sorters who do not understand each other use separate boxes and carry to separate piles, so that the floor space is literally covered with boxes and obstructions. It is easier to climb over these boxes than to find some one who can act as an interpreter to tell the people to clear them out of the way, hence every one—employees, foreman, and all—crowd around in a space which ought to be ample. Nevertheless the general manager, in accompanying us through the plant, would frequently find his way entirely barred, have to back up and try sometimes two or more aisles through piles of boxes before he could finally get through. The impression of general confusion and clutter that this condition produces may not be in exact proportion to its real inconvenience to the workers themselves.

The remaining thirty-six finishing departments fall between these two extremes.

From the standpoint of the employees the worst economic feature of the ordinary finishing room is probably the presence of broken glass upon the floor. The establishments where this condition does not prevail are very few. Apart from the danger of more or less serious cuts and injuries arising from this loose glass, the destruction of shoes is a very serious matter with employees. In securing family schedules from the mothers of girls in glass factories an almost universal complaint was that the additional expense for shoes more than offset whatever favorable conditions might surround the work.

In summary, it may be said that the evil features of the badly equipped factories tend rather toward physical discomfort than toward actual unhealthfulness. The work of finishing glass has some processes, such as sandblasting and acid etching, which are positively harmful to health. But such effects are usually limited to the persons engaged in the specific occupations, the number of whom in total is not large. With few exceptions the materials handled are not harmful, and there is no occasion for dust or lint or other vitiation of the air. In other words, there is no finishing department in which any considerable number of the employees are working under unhealthy conditions, although there are some in which a few, rarely more than a dozen, persons are engaged in specific occupations which are physically harmful.

LIGHT, VENTILATION, AND OVERCROWDING.

The following table shows the number of finishing departments in which insufficient light, bad ventilation, and overcrowding were found to exist in a certain portion of the working space:

NUMBER OF WOMEN AND CHILDREN EMPLOYED IN FINISHING DEPARTMENTS WHEREIN HYGIENIC CONDITIONS WERE UNSATISFACTORY.

	Number of establishments.	Number of employees.		
		Females 16 and over.	Under 16.	
			Male.	Female.
Total investigated	66	2,919	113	440
Number having overcrowded workrooms	7	528	319	75
Number having insufficient light	3	171	150	14
Number having insufficient facilities for fresh air	3	266	119	61

It is to be emphasized, however, that the figures here given for numbers of employees refer not to the number of persons affected by the adverse conditions, but merely to the total numbers of employees in such factories. As none of the factories listed had more than one room or division offending upon the mentioned points, the number of persons actually affected at any one time was, of course, not the same as the total number of employees; was, in fact, not more than 10 per cent of the total. As there was, however, in all these cases some interchange of working rooms by the workers, the number of persons working under the offensive conditions during the course of the year was very much larger than the number so working at the time of the investigation. The exact number is indeterminable.

Overcrowding was not a serious evil in any factory scheduled. The nature of the work is such that there is almost always ample space for comfortable movement. In the few cases where this is not the case the crowding is due to a bad distribution of the force, not to lack of room.

Overcrowding to the extent of vitiating the atmosphere was nowhere found. Impure breathing air was found in one room in each of the three factories noted, but the impure condition was here due to improper ventilation. One of these was exceptionally bad. This was a basement room of an Ohio factory. In this one room grinding, glass cutting, and sand blasting were being done by some twenty people, most of them women and girls. All these processes are dust producers, but, notwithstanding this, there were practically no ventilation facilities, except the windows, which were all closed at the time of the visit. The air was filled with dust and fine sand, so as to be not only extremely uncomfortable, but dangerous to health. On the whole, however, insufficient ventilation is very rare, while the reverse situation is common. Many of the rooms are so large and the buildings so flimsily constructed that in winter they are uncomfortably cold.

Light, also, was almost always good. Most of the finishing departments were located, as noted, in a more or less open section of the town, if not actually in the country, and, in consequence, were open on all sides to the light. There was no establishment in which the light was bad or artificial light necessary for any considerable portion of the factory. In each of eight establishments, however, there were one or more rooms in which artificial light was required the whole or a considerable portion of the working day. One of these, in West Virginia, used a dark basement room for wrapping, and, in necessarily using artificial light, rendered the eye strain unnecessarily serious by persisting in the use of gas burners without tips.

FIRE ESCAPES AND FIRE PROTECTION.

It may be assumed here, as it is in all laws upon the subject, that ordinary factories of not more than two stories in height do not require special fire escapes. The sixty-six finishing department buildings scheduled were distributed by heights as shown below. It is to be noted that the classification is strict, a basement being classed as a first story where more than one-half was above ground.

	Buildings.
1 story	18
2 stories	22
3 stories	16
4 stories	8
5 stories	1
6 stories	1

It appears, therefore, that forty of the sixty-six factories were of two stories or under. In addition, moreover, four of the buildings classed as of three or more stories were only technically of that class, the slope of the ground being such that in each case one side of the building at least was not more than two stories above the ground level. Including these, there was a total of forty-four buildings in which fire escapes were unnecessary, and a remainder of twenty-two in which they were demanded by the height of the building. In nine of these instances adequate escapes were provided, in one provision was inadequate, and in the other twelve there was absolutely no provision of fireproof escapes.

In the case of the factory classed as having inadequate fire-escape provision the building was five stories high, of good construction, and in all other respects, except safety for its employees, a modern comfortable building. The only fire escape was one running from the fifth and fourth floors to the roof of a three-story annex. The annex was of frame, and from its roof there was no means of reaching the ground except by means of a trapdoor and inside stairways. There were 35 men, 41 women, and 1 child employed on the fourth and fifth floors of this factory.

Of the twelve factories three or more stories in height and totally unprovided with fire escapes, seven were so well supplied with interior passageways, bridges, and other protective measures that the danger of personal injury from fire was negligible. The remaining five factories, however, were flagrantly menacing to life. One Ohio factory was particularly culpable. The building was only three stories in height, but of such inflammable construction and its interior passageways were so narrow, dark, and labyrinthine that a sudden fire would be disastrous.

WASH ROOMS AND DRESSING ROOMS.

Toilet facilities for boys, other than water-closets, are almost unknown in the glass industry. Two factories provide shower baths with attached dressing space for the men and boys of the furnace room, and some five others provide wash stands or basins. Otherwise there is practically no provision anywhere made for the boys washing or dressing or lunching. They wash at the common hydrant or water tub and eat lunch in the factory room, or, in good weather, in the yard outside. Very little changing of clothes is ever indulged in by the boys; for such dressing as is desired the furnace room usually offers privacy from feminine intrusion, but otherwise no conveniences at all.

The general absence of washing and dressing provisions for men and boys may be easily explained by the general lack of demand for such conveniences. With the female employees, however, the situation is different. Nearly all women, and to a less extent girls, do desire full opportunity of washing and, in certain circumstances, of dressing in the factory. The social stigma attached to appearing in the street in a dirty, untidy condition is to them an important matter. In factories where proper toilet facilities were lacking the lack was very generally complained of. A few women engaged at especially dirty work, stated that, because of their soiled condition at the end of the day's work, they were ashamed to use the street cars or even the more public streets in returning to their homes. Thus, however tired they might be, they regularly walked to their homes and often by a circuitous route.

Nearly all the women's work in the glass factory is more or less dirty. Such occupations, for instance, as cutting off, fluting, needle etching, are of a reasonably clean character.

Other occupations, however, are not of such a cleanly character. Grinding on flat stones, for instance, is normally very dirty, as the mixed water and sand splashes freely when the stone is revolved. Work requiring the use of colored paints and powders is also necessarily soiling, and the occupation of taking off the leer is often, in point of cleanliness, on a plane with chimney sweeping. A woman engaged in this class of work is forced to make some change of clothing at the factory if she desires to present a reasonably respectable appearance on returning home at the end of her day's work. And, in addition to the question of appearance, the economy of such a change is of considerable importance to a woman earning a low wage.

It may be said, therefore, that for all female workers the provision of washing facilities is at least highly desirable, while for many such workers proper conveniences for washing and also for dressing are imperative as matters of decency. Nevertheless, of the 116 factories investigated in which women were employed, 84 (72.4 per cent) were absolutely unequipped with dressing rooms and 85 (73.3 per cent) were unequipped with wash rooms, and 108 were unequipped with rest rooms. Women employed in such factories had for washing purposes at best only the common factory hydrants, and such dressing as they could decently do had to be done in the publicity of rooms in which men were employed or to which men had frequent access. That these factories which were unequipped with conveniences were not those in which the work was especially clean is shown by the fact that nearly one-half of such factories had women employed in leer-room occupations, normally the most dirty of all women's work.

Twenty-one establishments had both wash rooms and dressing rooms. The two were frequently no more than undivided portions of the same room, but when the space is sufficient for the two purposes, lack of separation is of no special significance. There were, moreover, ten establishments in which dressing rooms were provided, but no special washing facilities, and eleven in which there were wash rooms but no special dressing facilities. In all cases the washing facilities, when provided, were reasonably adequate, but in three cases the so-called dressing rooms were farcically inadequate; were, indeed, nothing more than cubby-holes provided to meet legal requirements. Another dressing room, while of adequate size, was without any equipment whatever. Furthermore, several of the wash rooms contained nothing except basins and water. Sufficient towels and soap were provided in less than a dozen factories.

In seven factories, on the other hand, the accommodations offered were especially good. In each of them the dressing room was of ample size, was furnished with chairs, tables, and in one case with couches. Wash basins with towels and soap were in the same or an adjacent room. The water-closets were connected with the dressing room and were thus assured of privacy. In two factories attendants were employed for the purpose of keeping such rooms in order.

Rest rooms were found to be very uncommon in the glass factories scheduled. Three factories had such rooms for use in case of accident or illness, and five others, while making no special separation, provided their dressing rooms with couches, and these have been classed as having rest rooms. Furthermore, a few of the other factories had couches in their offices, and these would doubtless be offered to employees in case of emergency.

On the whole, therefore, it may be said that the possibility of sudden illness or accident has been very little considered by the several factory managements. It is true that very little of the work done by women in the industry is of a kind to cause sudden illness and accidents of severity are rare. Nevertheless, such cases do occur from time to time, and the absence of a proper place to care for the person affected is often a cause for undue suffering. It means usually that the woman must either be treated in public or be sent to her home before she is able to be safely removed. Separate rest rooms are not necessary except, perhaps, in a factory employing a number of women, but a reasonably private room with couches should be regularly provided.

The exact extent to which dressing rooms, wash rooms, and rest rooms are provided and not provided by the several factories, and the number of females affected by such provision is shown in the following table:

NUMBER AND PER CENT OF FACTORIES PROVIDING AND NOT PROVIDING DRESSING ROOMS, WASH ROOMS, AND REST ROOMS FOR FEMALES, AND NUMBER AND PER CENT OF FEMALES AFFECTED.

	Number of establishments.	Per cent of establishments.	Number of females— 16 and over.	Number of females— Under 16.	Per cent of females
Dressing rooms:					
Provided	32	27.6	1,281	207	32.1
Not provided	84	72.4	2,768	376	67.9
Wash rooms:					
Provided	31	26.7	1,226	216	31.1
Not provided	85	73.3	2,823	367	68.9
Rest rooms:					
Provided	8	6.9	414	20	9.4
Not provided	108	93.1	3,635	563	90.6

The next table presents this same data by States, showing for each State the percentage of factories possessing wash rooms, dressing rooms, and rest rooms, and also the percentage of females working under such favorable conditions.

NUMBER OF FACTORIES POSSESSING WASH ROOMS, DRESSING ROOMS, AND REST ROOMS FOR FEMALES, AND NUMBER OF FEMALE EMPLOYEES IN SUCH FACTORIES, BY STATES.

State.	Total establishments.	Total female employees.	Number of establishments and number of female employees in establishments where there are—					
			Wash rooms.		Dressing rooms.		Rest rooms.	
			Establishments.	Employees.	Establishments.	Employees.	Establishments.	Employees.
Massachusetts and Connecticut	3	114	......	......	......	......	......	......
New York	9	274	......	......	1	21	......	......
New Jersey	10	161	1	11	......	......	......	......
Pennsylvania	35	1,615	11	423	13	461	3	40
Ohio	14	769	4	214	3	155	3	155
Indiana	15	409	3	155	5	228	......	......
Illinois	7	431	3	290	3	290	2	239
Kansas, Missouri, Wisconsin	4	108	......	......	......	......	......	......
West Virginia	15	718	6	331	6	331	......	......
Maryland	3	31	2	16	......	......	......	......
Virginia	1	2	1	2	1	2	......	......
Total	116	4,632	31	1,442	32	1,488	8	434

NUMBER OF FACTORIES POSSESSING WASH ROOMS, DRESSING ROOMS, AND REST ROOMS FOR FEMALES, AND PER CENT OF TOTAL FEMALE EMPLOYEES IN SUCH FACTORIES, BY STATES.

State.	Total establishments.	Total female employees.	Per cent of establishments and per cent of female employees in establishments where there are—					
			Wash rooms.		Dressing rooms.		Rest rooms.	
			Establishments.	Employees.	Establishments.	Employees.	Establishments.	Employees.
Massachusetts and Connecticut	3	114	......	......	......	......	......	......
New York	9	274	......	......	11.1	7.7	......	......
New Jersey	10	161	10.0	6.8	......	......	......	......
Pennsylvania	35	1,615	31.4	26.1	37.1	28.5	8.6	2.5
Ohio	14	769	28.6	27.8	21.4	20.1	21.4	20.1
Indiana	15	409	20.0	37.9	33.3	55.7	......	......
Illinois	7	431	42.9	67.3	42.9	67.3	28.6	55.5
Kansas, Missouri, Wisconsin	4	108	......	......	......	......	......	......
West Virginia	15	718	40.0	46.1	40.0	46.1	......	......
Maryland	3	31	66.7	57.6	......	......	......	......
Virginia	1	2	100.0	100.0	100.0	100.0	......	......
Total	116	4,632	26.7	31.1	27.6	32.1	6.9	9.4

LUNCH ROOMS.

Lunch rooms, or even special accommodations for eating in the working rooms, were found to be very uncommon. In one factory there was a restaurant conducted by outside interests, and at this a number of the employees obtained the midday meal. Besides this there was no other factory in which there were any special lunching facilities for males and only five in which such existed for females.

In one of these five instances a special room was provided; in three the lunch room was combined with the dressing room, there being ample space and sufficient chairs and tables; in the fifth there was no separate room, but movable tables were provided in a section of the working room.

In all of the six cases, just described, the lunching accommodations for females were adequate and, in all but one case, of a satisfactory character. In the remaining 110 factories in which women were employed, there was absolutely no provision for their eating their midday lunch at the place of employment. The employees, women as well as men, eat in their workrooms, or sometimes, when the weather is favorable, outdoors. As many of the women workers are unprovided with chairs while at work, they have none for use while eating, and must use as seats such tables, benches, and boxes as happen to be at hand.

The number of female employees in the six factories in which there were lunching accommodations was 238, as against 4,394 females for whom there were no such accommodations.

The matter of eating or not eating at the factory is, of course, in considerable measure independent of the provision of lunching facilities. Many of the employees, both male and female, would not care to eat at the factory under any circumstances. On the other hand there is a large number who are unable to go to their homes, and are therefore forced to make the best of the situation. The exact number of this latter class, who eat more or less regularly at their place of employment, and to whom, therefore, lunching accommodations would appeal, was impossible of ascertainment. It varies with circumstances, such as the length of the meal period, the season, and the distance from the factory to the homes of the individual workers. Rough estimates made in the field indicated approximately that in summer about one-half the women eat regularly at the factory, and in winter about three-fifths. These estimates are, of course, of no precise value, but they serve to show, in a measure, the importance of the demand for good lunching facilities in the factories.

In general, it may be said that the necessity for lunch accommodations is very much greater for females than it is for males. In the glass industry specifically, the importance of the matter varies considerably with the character of the factory and the character of the particular departments within each factory. In some branches of the work of glass finishing the rooms in which it is done may be, and sometimes are, kept clean and free from offensive rubbish or dirt. There is no occasion for air pollution, and, on the whole, such places may not be unhealthful places in which to eat. On the other hand, all the workrooms of some factories, and at least some of the workrooms of nearly all factories, are too dirty and too littered up with the work and its by-products to be suitable places for lunching. Sometimes the women in one of the dirtier, more littered-up departments, such as the leer room, can, at lunch time, go into one of the more pleasant workrooms of the finishing department, but this is by no means always possible.

The following table shows the time allowed for meals for women and children, separately, for those working on day shift only and those working on alternating force.

NUMBER AND PER CENT OF WOMEN AND CHILDREN ALLOWED EACH SPECIFIED TIME FOR MEALS IN GLASS FACTORIES INVESTIGATED, BY CLASSES OF EMPLOYEES.

Class of employees.	Employees allowed specified time for meals at—							
	Midday.				Midnight.			
	30 minutes to 59 minutes.		60 minutes to 90 minutes.		30 minutes to 59 minutes.		60 minutes to 90 minutes.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Boys under 16:								
Day force only	273	7.3	3,453	92.7	....	....	....	....
Alternating force	114	8.2	1,282	91.8	429	30.7	967	69.3
Total	387	7.6	4,735	92.4	429	30.7	967	69.3
Females 16 and over:								
Day force only	2,009	50.0	2,012	50.0	....	....	....	....
Alternating force	....	....	28	100.0	2	7.1	26	92.9
Total	2,009	49.6	2,040	50.4	2	7.1	26	92.9
Females under 16:								
Day force only	281	48.2	302	51.8	....	....	....	....
Alternating force	....	....	....	....	....	....	....	....
Total	281	48.2	302	51.8	....	....	....	....

WATER-CLOSETS.

In presenting the data relative to the water-closet accommodations for women and children, it is necessary to consider separately the accommodations provided for the boys and those provided for the women and girls. Very frequently the sexes are treated quite differently in this matter, even within the same factory, and in any case, the accepted standards are different. It is commonly agreed that closet accommodations which might be classed as satisfactory for males might not be satisfactory for females.

CLOSETS FOR BOYS.

Practically all the boys in the glass industry are employed as shop boys in the furnace room. As earlier described, the furnace room of the usual glass factory is a large, somewhat cheaply built structure, open on two or more sides, and, in consequence, subject to great temperature variation. This type of building is more or less necessary, the work by its nature precluding the possibility of many comforts, such as seats, an even temperature, careful dressing, etc. Such being the case, it is not unnatural that the provision of good water-closet facilities has been often disregarded by the employers and unexpected by the employees. Many of the early factories, located in the country or on the extreme edge of a town, did not take the trouble to provide closets of any kind, and during this investigation two factories of this character were found to be still in existence. No females were employed in either of the two.

With these two exceptions all the factories visited made some closet provision for the employees of the furnace room. For the most part one of these furnace-room closets is very much like another. It consists of a rough frame structure, situated at some distance from the factory building, is unheated, poorly protected from the weather, and in winter very cold. Sometimes it is built over a stream, and in this case is generally free from offensive odor. More often a simple pit is dug, and then the odor and dirt are almost always offensive. This description applies to approximately 90 per cent of the furnace-room closets scheduled. The remainder, if mostly of a simple type, were clean, well flushed, and properly protected from the weather. Three factories exhibited exceptional care in providing toilet facilities. The closets in these cases, although not elaborate, were built according to modern sanitary ideas, with separate seats, a supply of paper, and automatic flushing, and the walls were kept well whitewashed and the floors and seats clean.

Cleanliness of furnace-room closets, although important, is on the whole less pressingly necessary than is the matter of their suitable location and proper shelter. Cleanliness depends upon the cooperation of employer with employees, and men and boys are often thoughtless. Employers complained frequently, and usually with entire justice, that the carelessness of the men and boys rendered it exceedingly difficult to keep the toilets in good condition. Several instances came under observation where excellent accommodations had been wantonly abused. Such objection, however, could not apply to the original locating of the closet. This was a matter to be determined solely by the employer, and the almost universal custom of building the closet of open framework and placing it at a considerable distance from the workshop, without providing a proper approach, is to be condemned as extremely dangerous to health of the workers. Cases are frequent where the distance between closet and workshop was from 100 to 300 feet, with no sheltered approach available. The boys in using the closets must pass from highly heated furnace rooms, walk the prescribed distance without shelter from the weather, and then expose themselves to the cold of the badly housed closet. The boys rarely have opportunity, even if they have the thought, to put on extra clothing or otherwise guard against the sudden and often very great change in temperature.

Usually it may not be practicable to place the furnace-room closets within the factory building, but it is always possible to locate them near the working room, to provide a covered approach, and to construct the closet buildings with sufficient solidity to keep out the wind and weather. The feasibility of such a plan is evidenced by the fact that some few factories, mentioned above, have already put it into practice.

In factories which possessed a finishing department, as well as a furnace department, the men and boys of the former were expected, in most cases, to use the same closets as those provided for the furnace-room workers. Sometimes, however, especially in the larger establishments, there was separate provision for the two departments. The only importance of the distinction is that special finishing-room closets were usually located within the factory and were better provided and better maintained than those of the furnace room.

The exact character of the closet accommodations for boys and men in the several factories scheduled and the number of persons affected by such accommodations are shown in the following table. This covers 179 factories. All of these were not employing boys under 16 at the precise time of scheduling, but nearly if not quite all of them did employ boys under 16 from time to time.

SUFFICIENCY, LOCATION, AND SANITARY CONDITION OF WATER-CLOSETS FOR MALE EMPLOYEES.

	Establishments.		Male employees.			
			Number—		Per cent—	
	Number.	Per cent.	16 and over.	Under 16.	16 and over.	Under 16.
Provision:						
Provided	177	98.9	44,570	5,062	98.6	98.8
Not provided	2	1.1	640	60	1.4	1.2
Sufficiency:						
Sufficient	154	87.0	38,857	4,240	87.2	83.8
Not sufficient	23	13.0	5,713	822	12.8	16.2
Location:						
Inside	48	27.1	14,832	1,670	33.3	33.0
Outside	127	71.8	29,079	3,335	65.2	65.9
Inside and outside	2	1.1	659	57	1.5	1.1
Cleanliness:						
Good	71	40.1	20,483	1,467	46.0	29.0
Fair	56	31.6	13,205	1,897	29.6	37.5
Bad	50	28.3	10,882	1,698	24.4	33.5

The degree in which the accommodations thus characterized varied in the several States concerned is indicated in the following table. This shows for each State the percentage of factories offending on the three points of sufficiency, location, and cleanliness, and the percentage of boys affected in each case by such offending conditions.

NUMBER AND PER CENT OF FACTORIES AND OF BOY EMPLOYEES WITH UNSATISFACTORY CONDITIONS AS TO SUFFICIENCY, LOCATION, AND SANITARY CONDITION OF WATER-CLOSETS, BY STATES.

State.	Total establishments.	Total boys employed.	Number of factories offending and number of boy employees offended against as to—					
			Sufficiency.		Inside location.		Cleanliness.	
			Establishments.	Employees.	Establishments.	Employees.	Establishments.	Employees.
Massachusetts and Connecticut	3	42	1	9	2	36	1	27
New York	17	92	2	21	13	88	11	83
New Jersey	17	497	3	106	17	497	10	349
Pennsylvania	54	1,812	12	539	35	1,224	36	1,487
Ohio	22	515	3	92	16	375	10	320
Indiana	20	515	1	43	20	515	10	282
Illinois	9	338	1	12	4	35	4	95
Kansas, Missouri, and Wisconsin	5	53	....	....	5	53	2	10
West Virginia	17	646	....	....	8	205	14	575
Maryland	4	392	....	....	2	233	2	230
Virginia	6	90	....	....	4	76	3	67
Tennessee, South Carolina, and Georgia	3	70	....	....	3	55	3	70
Total	177	5,062	23	822	129	3,392	106	3,595

State.	Total establishments.	Total boys employed.	Per cent of factories offending and per cent of boy employees offended against as to—					
			Sufficiency.		Inside location.		Cleanliness.	
			Establishments.	Employees.	Establishments.	Employees.	Establishments.	Employees.
Massachusetts and Connecticut	3	42	33.3	21.4	66.7	85.7	33.3	64.3
New York	17	92	11.8	22.8	86.5	95.7	64.7	90.2
New Jersey	17	497	17.6	21.3	100.0	100.0	58.8	70.2
Pennsylvania	54	1,812	22.2	29.7	64.8	67.5	66.7	82.1
Ohio	22	515	13.6	17.9	72.7	72.8	45.5	62.1
Indiana	20	515	5.0	8.3	100.0	100.0	50.0	54.8
Illinois	9	338	11.1	3.5	44.4	10.4	44.4	28.1
Kansas, Missouri, and Wisconsin	5	53	....	....	100.0	100.0	40.0	18.9
West Virginia	17	646	....	....	47.1	31.7	82.4	89.0
Maryland	4	392	....	....	50.0	59.4	50.0	58.7
Virginia	6	90	....	....	66.7	84.4	50.0	74.4
Tennessee, South Carolina, and Georgia	3	70	....	....	100.0	78.6	100.0	100.0
Total	177	5,062	13.0	16.2	72.9	67.0	59.9	71.0

CLOSETS FOR FEMALES.

Females are employed in 116 establishments, and in all of these males are also employed, if not at the same work at least in the same department. In none of these cases were persons of different sex required to use the same closets.

The character of the accommodations offered females is shown in the following table:

SUFFICIENCY, LOCATION, AND SANITARY CONDITION OF WATER-CLOSETS FOR FEMALE EMPLOYEES.

	Establishments.		Number of females—		Per cent of females.
	Number.	Per cent.	16 and over.	Under 16.	
Sufficiency:					
Sufficient	100	86.2	3,239	347	77.4
Insufficient	16	13.8	810	236	22.6
Location:					
Inside work building	76	65.5	2,939	468	73.6
Outside work building	40	34.5	1,110	115	26.4
Condition as to cleanliness:					
Good	72	62.1	2,580	324	62.7
Fair	30	25.8	993	173	25.2
Bad	14	12.1	476	86	12.1

The first section of this table shows that 13.8 per cent of the factories have insufficient closet accommodations. Sufficiency is, of course, chiefly a matter of number, and its determining factor is whether or not an employee, under ordinary circumstances, is kept waiting unduly. There may, however, be another important factor—the existence of a factory rule limiting the time an employee may be absent in a visit to the closet. If the time limit is short, it is, of course, imperative that every employee should be assured of immediate accommodation. On the other hand, a liberal policy on this point on the part of the foreman or employer may do much to mitigate the evils of an inadequate supply of closets.

In very few of the glass factories visited was there a fixed time-limit rule established. In several, however, there was a more or less definite understanding upon this point, and a woman employee who absented herself any length of time would have certainly fallen into disfavor, even though her absence may have been due to her enforced waiting at the closet. In one factory only did the employees make serious complaint upon this point. Here a definite ten-minute rule was in operation among all or nearly all the women employees. The rule was strictly enforced, one of the foreman's methods of enforcement being the making of improper remarks to a woman who was absent beyond the set period. As the closet accommodations were distinctly insufficient, the rule in this case was particularly evil and the cause of much suffering.

The second section of the table shows that in 34.5 per cent of the factories the closets are outside the factory building. The word outside, as here used, means that the closets referred to are all so located that the employees in visiting the closets are exposed to the weather. Usually the exposure is not great, the distance being from 5 to 10 feet; but in two cases the distance is 50 feet and in two other cases is 200 feet. The worst situation was found in a factory where the women's closet was separated from the factory by a low muddy road. In rainy weather this road became impassable, so that during such a period the women were absolutely deprived of closet accommodations.

Upon the point of closet cleanliness a very large percentage of the factories were at fault. The third section of the table shows that only 62.1 per cent of the factories kept their closets in good condition. In other words, more than one-third (37.9 per cent) of the 116 factories visited did not maintain their closets in a satisfactory state of cleanliness and freedom from offensive odor. Moreover, of the 72 factory accommodations which were classed as good a number were only temporarily so at the time of the inspection made under this investigation. In only some 55 factories were the closets not only in a cleanly sanitary condition, but bore evidence of being kept continually in such condition.

As to the 44 factories whose closets were not in good condition, little more can be said than that the variation in their degrees of badness was extremely great. It is impossible to show precisely the extent of such variation by means of a table; but the general situation may be indicated by the statement that of the 14 factories with closets classed as in bad condition the conditions in 5 were further described by the agent as being very bad and in 4 as being foul or filthy.

A fourth factor affecting the character of women's closets, that of privacy of approach, while of much importance, could not be precisely scheduled because of the absence of a satisfactory standard as to what constitutes privacy. The number offending upon this point, however, may be closely approximated as being 25 per cent of the total. The subject of privacy of closets is, indeed, one to which very few manufacturers have given any thought or, at least, active attention. The cases of greatest offense occur almost entirely in the larger tableware and shade factories, which employ men and women in the same finishing operations and in the same rooms. Often one or two large working rooms represent a whole floor of the building. In such case, there being no other available space on the floor, the closets are often simply walled-off portions of the workroom, the men's and women's closets side by side and the entrances exposed to the direct view of all.

In summary of this discussion of women's closets, it is important to point out that of the total number of factories 36 had closets which conformed in character to all four of the requirements here mentioned—sufficiency, convenience of location, privacy of approach, and cleanliness. A few were somewhat elaborate, but the majority were not expensive either of installation or of maintenance, no more expensive than many others which, because of lack of thought and attention, were thoroughly unsatisfactory. So far as concerns the important point of cleanliness, the chief cause of difference between good and bad conditions is the difference between providing and not providing a particular person to do the cleaning. In those factories where it was one person's explicit duty to look after the matter the closets were almost always in clean condition. Where, however, the responsibility is left to the workers themselves, the conditions were almost uniformly bad.

The degree in which the good and bad conditions above pointed out vary among the several States is shown in the following table. This table shows for each State the per cent of factories offending in the three particulars of sufficiency, inside location, and cleanliness, and also the number of females affected by such offending conditions.

NUMBER AND PER CENT OF FACTORIES AND OF FEMALE EMPLOYEES WITH UNSATISFACTORY CONDITIONS AS TO SUFFICIENCY, LOCATION, AND SANITARY CONDITION OF WATER-CLOSETS, BY STATES.

State.	Total establishments.	Total female employees.	Number of factories offending and number of females offended against as to—					
			Sufficiency.		Inside location.		Cleanliness.	
			Establishments.	Employees.	Establishments.	Employees.	Establishments.	Employees.
Massachusetts and Connecticut	3	114	....	....	....	....		66
New York	9	274	....	....	1	12		24
New Jersey	10	161	2	24	8	59	3	22
Pennsylvania	35	1,615	12	892	5	286	18	961
Ohio	14	769	1	45	4	288	3	211
Indiana	15	409	....	....	11	252	7	174
Illinois	7	431	1	85	3	131	2	95
Kansas, Missouri, Wisconsin	4	108	....	....	4	108	2	50
West Virginia	15	718	....	....	3	74	4	110
Maryland	3	31	....	....	1	15	1	15
Virginia	1	2	....	....	....	....	....	....
Tennessee, South Carolina, and Georgia	....	....	....	....	....	....	....	....
Total	116	4,632	16	1,046	40	1,225	44	1,728

State.	Total establishments.	Total female employees.	Per cent of factories offending and per cent of female employees offended against as to—					
			Sufficiency		Inside location.		Cleanliness.	
			Establishments.	Employees.	Establishments.	Employees.	Establishments.	Employees.
Massachusetts and Connecticut	3	114	....	....	....	....	66.7	57.9
New York	9	274	....	....	11.1	4.4	22.2	8.8
New Jersey	10	161	20.0	14.9	80.0	36.6	30.0	13.7
Pennsylvania	35	1,615	34.3	55.2	14.3	17.7	51.4	59.5
Ohio	14	769	7.1	5.9	28.6	37.2	21.4	27.4
Indiana	15	409	....	....	73.3	61.6	46.7	42.5
Illinois	7	431	14.3	19.7	42.9	30.4	28.6	22.0
Kansas, Missouri, Wisconsin	4	108	....	....	100.0	100.0	50.0	46.3
West Virginia	15	718	....	....	20.0	10.3	26.7	15.3
Maryland	3	31	....	....	33.3	48.4	33.3	48.4
Virginia	1	2	....	....	....	....	....	....
Total	116	4,632	13.8	22.6	34.5	26.4	37.9	37.3

ACCIDENTS IN THE FINISHING AND LEER ROOMS.

In discussing the subject of furnace-room accidents (p. 87), the difficulty of obtaining exact accident data was pointed out. The same difficulty applies to the other departments of the factory. It was found that in almost every instance the larger establishments possessed full and reliable statistics of accidents, but that the smaller establishments seldom did so. On the whole, however, no difficulty was experienced in obtaining correct data regarding accidents of a reasonably serious character. Slight injuries, causing little if any loss of time, are not infrequent and are quickly forgotten even by the sufferers themselves, but an accident of any seriousness is well remembered, and is a matter of common information in the usual glass community.

Thus, as was the case in the furnace room, the data upon minor accidents in the leer and finishing rooms are too incomplete to warrant tabulation, and in the following table only those accidents are included which caused the loss of at least two days' time. It is to be noted that the information is for the year preceding the time of the visits to the respective factories. None of the few males under 16 employed in the finishing and leer rooms were reported to have met with accidents, and therefore such persons do not appear in the table. The accidents to males 16 and over in these departments, however, have been included. Thus, this table taken in conjunction with the table showing accidents in the furnace room furnishes a complete list of all accidents to women and children reported during a year's period to have occurred in any of the 179 glass factories scheduled by this investigation.([a])

The list for men is not complete, yard laborers and a few others not working in the factory proper not being included.

ACCIDENTS IN FINISHING AND LEER ROOMS CAUSING LOSS OF NOT LESS THAN TWO DAYS' TIME.

	2 days and under 3.	3 days and under 1 week.	1 week and under 1 month.	1 month and under 3 months.	Over 3 months.	Fatal.	Time lost not ascertainable.	Total.
Females 16 years and over	3	3	[b] 5	3	[c] 1	1	[d] 3	19
Females under 16 years	....	....	1	....	....	....	[e] 1	2
Total females	3	3	6	3	1	1	4	21
Males 16 and over	1	5	10	1	1	....	17	35

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[a] Among the few women working in the furnace room (as described in the section on "Women as substitutes for boys," pp. 172–180) no accidents causing the loss of as much as two days' time were reported.

[b] One of these injuries resulted in the loss of half a finger.

[c] In this case a grinder had her hand caught between the grinding wheel and the belt. The result was a severe laceration.

[d] Two of the accidents were hand cuts from the breakage of chimneys in grinding. The third was a flesh cut on face due to flying piece of broken globe.

[e] This accident was a badly mashed finger, caught in a press for making paper boxes.

Because of the mentioned difficulty of obtaining precise accident data it is not improbable that the figures of this table are incomplete. It is believed, however, that no omission was made in the obtaining of the more serious accidents, those causing the loss of, say, a week's time, and to this extent, at least, the above information may be accepted as closely accurate.

Using the table as a guide, therefore, it appears that during the period of the selected year there were twenty-one accidents among females causing a loss of at least two days' time, of which fifteen caused a loss of at least a week's time. One accident was fatal. This occurred to a woman fluter of 18 years of age, who was killed as a result of becoming entangled in the belting while trying to adjust it to her fluting wheel. The next most serious accident was of a similar character, a woman grinder of 17 years of age having had her hand caught between the grinding wheel and the belt. She was incapacitated from work for several months. Of the four accidents for whom the time lost was reported as "not ascertainable," three were not serious, being merely flesh cuts from broken glass, and probably did not cause many days' lost time. The remaining one, however, happening to a girl under 16 years of age, was a badly mashed finger, and probably caused several months' incapacity. The exact period could not be learned, as the girl had not returned to work and could not be located. The accident occurred from the catching of the finger in a press machine for making paper boxes or cartons. The only other case of an injury which was permanently maiming was that occurring to a woman, classed above as having lost between one week and one month from work, whose finger was so badly injured on a grinding machine that the upper joints were lost.

Classified according to the character of the injury, the twenty nonfatal accidents listed appear as follows:

Hand and flesh cuts from broken glass	14
Face cut from broken glass	1
Bruises and lacerations	2
Sprained ankle	1
Broken leg	1
Scalded hand	1
Total	20

It is evident, therefore, that the great majority of all the accidents were due to broken glass. As every occupation requires the handling of fragile glass articles, breakage is not uncommon and resulting cuts are always possible. In such occupations as grinding and fluting the danger is more acute because of the fact that the rapidly revolving wheel tends to make the breaking more violent. Flesh cuts of this character are rather common. Usually they cause the loss of no more time than that necessary for bandaging, and it is exceedingly rare that glass cuts have serious after effects.

The serious accidents, as noted above, were due not to injuries from broken glass but to the entangling of the fingers and hands in the belting. The possibility of such injury is rather limited, as very few occupations of women require the use of any sort of power-operated devices. Elaborate machinery is entirely absent. Moreover, in such occupations as fluting, grinding, glass cutting, where power is used, women operators are rarely required or expected to adjust the belting, men being assigned this duty. Occasionally, however, when the men are absent or the women are in a hurry (they are mostly piece workers) the women attempt the adjusting themselves. This is particularly true of the younger and more careless workers, and as a result the number of women who are thereby injured is proportionately large. Such accidents are entirely unnecessary and could be avoided by more stringent supervisorship without any additional expense.

In summary, it may be said that in the occupations of women and girls in the finishing and leer rooms minor flesh wounds are common, but injuries of a fatal or even of a seriously disabling character are very rare. In the occupations of the larger memberships—washing, packing, wrapping, sorting, etc.—the chance of serious accident is almost entirely absent. In the 179 investigated factories, employing normally 4,632 females, twenty-one accidents were reported during the preceding year. The one fatal accident reported as having occurred during that year was, as far as could be learned, the only one of the kind that had occurred in any of these factories during the preceding five years at least.

It is to be specifically noted, however, that this account of accidents among women in the glass industry does not include those women who were working in a few so-called glass factories where metal caps for jars and bottles, pressed brass decorations for lamps, and similar articles are made, but where little or no actual glass work is done. All such work requires the use of stamping presses of considerable power, and these presses are exceedingly dangerous to the fingers of their operators.

CHAPTER XIII.

DEMIJOHN COVERING AND VIAL AND MIRROR MAKING.

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DEMIJOHN COVERING.

The work of demijohn covering might very well be considered as an industry in itself. The materials handled are rattan reeds, and the work is only related to the glass industry in the fact that the demijohns covered are of glass. As, however, two of the scheduled glass-making establishments were engaged in the covering as well as the making of demijohns, the covering processes in those two establishments were made a part of the investigation.

Demijohn covering is such an old industry, is so well standardized, and the differences in processes are so slight that the information obtained at the two mentioned factories may be accepted as substantially representative of the industry. The differences in work and working conditions of these two factories were, indeed, extremely small. For this reason the following descriptive account will relate, for the most part, to the one of the two factories which was employing the larger number of women and girls at the work. The other factory will be mentioned only when the differences in methods of work are of significance. These two establishments will be referred to, respectively, as Establishment No. 1 and Establishment No. 2.

BUILDING AND INTERIOR SURROUNDINGS.

The cover-shop building (Establishment No. 1) is a two-story wooden structure between the furnace room and the office. On the first floor is the engine room, in which is located a gasoline engine whose power drives the air blasts in the furnace room and also operates the machine which cuts out the wooden bottoms for the demijohns. Other rooms on this floor are the packing room and the machine shop. Above, on the second floor, is a long, large room (approximately 120 by 44 feet) in which the covering work is done. The windows are very numerous. At one end of the room are the women's toilets, which are in plain view of all the workers and which, being opposite the stair opening, are passed by every one going up and down the stairs. Nearby the toilets is one faucet, supplying drinking water for the entire room. Hats and cloaks are hung from hooks and nails on the walls, no other dressing accommodations for females being provided. A system of parallel steam piping about 12 feet from the floor keeps the room sufficiently warm in cold weather, and the large number of windows offers ample ventilation. Also because of the number of windows the natural light is excellent.

The work is essentially clean. The reeds with which the covering is done are freed from all dirt by the water-soaking given them in order to render them more pliable. The resulting softness also renders them less harmful to the hands. The odor of the reeds pervades the room, but it is not an unpleasant odor.

In this establishment the general testimony was that the cover shop was an agreeable place in which to work. As will be noted, the character of the work requires that seats be generally used by the workers.

PROCESSES AND OCCUPATIONS.

There are three main processes in the complete covering of a demijohn—bottoming, covering proper (subdivided in this establishment into ''siding up'' and ''topping off''), and handling. The first process—bottoming—requires comparatively little skill on the part of the workers, and at it only women and children are employed. The second process—covering—requires considerable skill, and both men and women are engaged at the work. In the third division—handling—the work is very skilled and men only are employed.

BOTTOMING.

The bottom piece, or mat, for the demijohn holder may be either woven from reeds or sawed out of wood, the wooden bottom being a patented device. Those of reeds are woven by some of the older ''ring layers'' (or ''ring makers''), who make the bottoms or lay the rings, as the needs of the business necessitate. On the day of the agent's visit to the factory no one was engaged at making the reed bottoms, as there had already been made a sufficient supply to last some time. It is understood, however, that while the work is unskilled, a fair amount of dexterity and considerable practice is required to weave together the reeds so as to form a perfect bottom.

Starting with the bottoms, either of wood or of reeds, the next operation is the making of the skeleton baskets which form the basis for the covering. With wooden bottoms the work is called ''sticking bottoms,'' while with reed bottoms the work is known as ''laying rings.'' There is no great difference, however, in the general character of the operation. In the former operation the ends of the reeds, somewhat longer than the bottle for which they are worked, are stuck in the holes bored in the wooden bottom. When the end of a reed has been placed in each of the holes, the reeds are worked horizontally for about an inch about the wooden base, making a solid foundation into which to set the demijohn. The extending loose ends of the reeds are tied roughly together in order to make the handling of the newly formed skeleton basket more easy. These reeds are the vertical ribs under and over which the horizontal weaving of the cover is worked.

As a general rule, the younger girls are employed sticking the wood bottoms. The laying of these is said to be much faster than that of the reed bottoms. Those doing this work sit at tables on which are piles of the wood bottoms. Some, however, sit on boxes or small benches about 1½ feet from the floor.

The ring laying on reed bottoms is done in a manner similar to that just described, except that the girls and women do not sit at tables, but use small benches. Into the circular reed bottoms, woven as already described, the ends of long reeds are worked. Then the "ring" proper—the 1½ inches of horizontally worked reeds—is made and the sidepieces tied exactly the same as in the case of the wooden bottoms.

COVERING.

The second main division of the work in the cover shop is the actual covering of the demijohns. Covering is divided into two distinct operations—siding up and topping off. The siding up of a demijohn is the covering of the bottle from the ring to within a short distance of the shoulder. Topping off, the more skillful part of covering, is the completion of the cover from the shoulder to the mouth of the bottle, where the operation is ended by turning down and tying the ends of the reeds.

Siding up may often be done by beginners, while efficient topping off requires long practice. Topping off is the goal at which a girl aims, for a good topper-off averages very good earnings. A girl may begin work as a sider-up only; this, indeed, is the usual method of learning the covering art. Having learned to side up, she is allowed to top off as well, and, once having become notably proficient at siding up and topping off, she may hope to be employed as a topper-off entirely.

In siding up, the worker sits on the usual low bench or box raised about 1½ feet from the floor. The bottle is placed in the lap, with the mouth pointing away from the operator. It is extremely difficult to watch the precise movements that are made, so rapidly do the siders work. The general plan of the work is to weave under and over the vertical slats made by the ring makers, the demijohn being revolved by a swinging motion of the legs. Flat-edge reeds that have been moistened in water to make them more pliable are used. These are about one-third of an inch wide. In the formation of a side a number of reeds are used, and the fastening of the ends under the rib pieces so that they overlap in the proper manner is the interesting feature of siding up. The reeds are rough and sharp at the edges, and for protection to the fingers tapes are worn. One other significant feature about the work of the siders-up, as well as of the toppers-off, is that of the stooping position in which they sit. Some rest their backs against the wall, but as a general thing they work without any support for the back.

One duty of those who are siding is to bring from downstairs the bottles which they are to cover. Roustabout boys carry down the covered demijohns, and formerly, it is claimed, brought up the bottles for the girls. The reason why boys no longer do this work could not be learned. The butts from which the bottles are brought up used to be near the packing room, directly under the cover shop, but now the girls have to go outdoors. One of the siders-up stated that she could carry up 8 half-gallon bottles at one time, this being a load of 16 pounds. Another worker in the cover shop sometimes carries up 12 half-gallon or 10 1-gallon bottles at one time. In spite of some of the undesirable things about this duty of the girls, it offers what must be a welcome relief from the intenseness with which they are working while covering.

One boy 14 years old is engaged in siding up and a few men work once in a while on the larger sizes, siding up and topping off.

The second and more skillful part of covering is the topping off, which may be done either by the same person who does the siding up or by a topper-off, who does no siding up. The bottle is placed in the lap exactly the same as in siding up, and the method of operation is also similar. The reeds must be run under and over the ribs that run vertically. The difficult portion of the work is the covering of the shoulder. The topper-off begins work below the shoulder and the cover must be so woven that there shall be no slipping. This is the main requirement, to meet which long practice is necessary. Continuing the cover to a point very near the mouth of the bottle, the last operation, called "turning down," consists in bending down the ends of the reed basket and tying them. The demijohn is then ready for its handle.

In topping off, even more than in siding up, the sharp edges of the reeds prove very troublesome to the fingers. Some of the girls, after suffering many cuts, get their fingers so hardened that they do not have to use tape, but the majority tape each finger every day. No particular finger seems to get sorer than the others. Even the knuckles of the fingers get sore in some cases from constant striking against the demijohn, but this does not apply to experienced workers.

The most experienced and expert topper-off now employed was cutting her fingers considerably the afternoon of the agent's visit to the cover shop, and some blood spots were on her apron. She tapes her fingers but little. Inquiries failed to settle definitely whether the tapes on the fingers are of such incumbrance as to interfere with fast work. Some workers stated that they do interfere, while others make denial. The fingers are not taped completely, of course. The covering on each finger is only about 1 inch in length or width and is placed so as to protect the inside of the fingers between the second and third joints. The tapes are not furnished by the company, but have to be bought by the employees who desire them.

The experienced worker just referred to states that it takes six months to learn to side up and one year to top off, slowly. She has been in the demijohn business for six years, and while she is at present the most rapid worker in this shop, she is not remarkably fast compared to others elsewhere. In her work here she has three siders-up and must sometimes work overtime in order to keep up with them. Elsewhere is explained in detail the method of payment for the different parts of this work. There seems to be little speeding up. The siders, it is said, set the pace, but the daily output depends on the way the workers feel. Some days they feel like doing fast work, while at other times they "take it easy."

The employer states that usually the smaller girls and women work on the small sizes and the older employees are given a chance to work on the larger sizes, as they can make more money by so doing. As a general thing men work on the 5-gallon ware, on account of the heavy weight of these bottles. The size of the 5-gallon bottles and the manner in which they have to be held in the lap makes it somewhat hard for the women to work on them. Men, working on the 5-gallon, do both siding and topping off. Of the girls and women, only two or three ever work on the topping off of 5-gallon bottles.

HANDLING.

The third and last division of the work on the covering of demijohns is putting on the handles, which is men's work in this establishment. After a bottle leaves the hands of the topper-off one of the handlers builds up a wire handle, the basis for the reed handle. The wires once adjusted, the man working on the reed handles weaves from round-cut reeds, which are sometimes painted red, the handle about the wire. He uses a small knife with which to make openings between the horizontal ribs about the bottle, and ties the ends of the handle very quickly. So far as could be learned, girls and women never do this work. The work requires considerable strength in the wrists and fingers. The bottles are held between the legs. The work proceeds with extreme rapidity.

The description of demijohn-covering occupations as thus given for Establishment No. 1 applies with substantial accuracy to Establishment No. 2. The only important variation is in the second of the above-described processes, that of covering. In Establishment No. 2 there is no division of the occupation of "covering;" no separation, that is to say, between "siding up" and "topping off." The same worker always performs both operations. Here also the handling is done by males; but the other two operations—bottoming and covering—are done by both males and females, the work being distributed among the sexes simply according to the size of the ware handled. The women and girls cover all sizes of bottles to 1 gallon, all larger sizes being done by men.

PIECE RATES AND SPEED OF WORK.

In the later treatment of the general subject of wages and earnings of women in the glass industry the women employees in demijohn covering are included. Here, however, may pertinently be given an account of the rates of pay and of the speed of work as shown by the output amounts of certain individual workers. The figures are for the factory referred to above as Establishment No. 1.

Ring laying and bottom sticking are paid for on a time basis, the rates for bottom sticking being from $3.50 to $4.50 per week and for ring laying by women from $6 to $8 a week, excluding one woman of exceptional ability at present employed, whose weekly wage is reported as being $24.

All actual covering work—that is to say, the two occupations of siding up and topping off—is paid for by the piece. The rates are fixed for the joint occupations. Thus, on a half-gallon demijohn the rate for the complete siding and topping is 20 cents per dozen. When one women performs both these operations the full amount is, of course, paid to her. When, however, the work is divided—that is to say, when one person does the topping and one or more persons the siding—the quoted rate is equally divided between the two operations, not directly among the persons. Thus, if 1 topper and 3 siders work together as a team and the output of the team on a given day is enough to earn for it $6, the topper gets one-half, $3, and the other half, $3, is divided among the 3 siders, each getting $1. The following were the rates for covering being paid on the 5 most important sizes of demijohns at the time the factory was visited:

RATES PAID FOR COVERING DEMIJOHNS.

Size of demijohn.	Rate (cents).	Unit.
One-half gallon	20	Dozen.
One gallon	26	Dozen.
Two gallons	3	Each.
Three gallons	4	Each.
Five gallons	6½	Each.

The occupation of handling was being paid for at the following rates. As has been remarked, no women or girls were employed at this work in this establishment at the time of the investigation:

RATES PAID FOR HANDLING DEMIJOHNS.

Size of demijohn.	Rate (cents).	Unit.
One-half gallon	35	100.
One gallon	35	100.
Two gallons	40	100.
Three gallons	40	100.
Five gallons	1	Each.

The speed of the work as performed may be suggested by the following examples:

Ring laying.—The beginner and the average maker usually make about 200 reed rings per day of 8½ hours. The one employee who was being paid $24 a week made as many as 1,200 half-gallon rings per day. It is much easier to lay or "stick" the wood bottoms than those of reeds. It is possible for an average worker to stick as many as 50 wood bottoms in 10 minutes.

Siding up.—The sider-up for the most skilled of the toppers-off in the 6-day period covered by the pay roll sided 219 half-gallon and 160 gallon demijohns—an hourly output of approximately 4.3 half-gallon and 3.2 gallon demijohns.

Siding up and topping off.—One girl in the same 6-day period sided and topped 303 halves and 65 gallons; another, 216 halves and 65 gallons; a third, a beginner, 202 halves and 98 gallons. A man working on 5-gallon demijohns in a normal day of 8½ hours sided and topped 35.

Topping off.—One experienced worker has a normal day's average of approximately 350 half-gallon demijohns or 275 one-gallon or 100 five-gallon demijohns—an hourly record of approximately 41, 32, and 12. Another, a fast worker, had a 5-day record of 187 half-gallon, 182 one-gallon, 79 two-gallon, 27 three-gallon, and 120 one-gallon demijohns.

Handling.—Only men do this work. One man handled regularly about 1,000 in a day of 8½ hours, an hourly rate of 118. A second man did approximately 1,200 in a day, a rate of 141 per hour.

MAKING OF VIALS, DROPPERS, AND SIMILAR ARTICLES FROM GLASS TUBES.

There are a number of industries auxiliary to the making of glass, secondary operations or processes as it were, that, while not actually producing glass, have to do with the manipulation in so intimate a way as to bring them fairly within the scope of the glass investigation. Of these the making of homeopathic medicine vials, thermometer tubing, medicine droppers, etc., is clearly one. Here tube glass is the raw material instead of sand and soda ash; but the methods of manipulating the glass tube are as essentially those of glass blowing as are those of making an offhand lamp chimney.

There are a number of establishments making articles which come under the general classification of Bohemian lamp or jet work. One of the largest of such plants will be considered here as covering all the essential features of the work and indicating the general wage status of them all.

The tube from which the vials are made is received direct from the plants making tube glass. Upon its arrival it is carefully sorted to get straight pieces of tubing of the same diameter. In the case of tubing for hypodermic vials the tubing is sorted to $\frac{1}{100}$ of an inch. The sorting is done exclusively by men and consists simply in drawing the tube through a gauge, which resembles in appearance an ordinary wire gauge. Where the tube is too loose in the gauge or is large enough to stick, it is broken off and the piece which has proved too large or too small is thrown aside.

After the tube has been properly sorted it passes to the cutters, who cut it up into the proper lengths for vials. In this work a toothless steel disk operated like a circular saw, revolving at a high speed, is used. The machinery is as well protected as possible, and no serious accidents are said to have attended its use. This work requires no skill, as the tube is held in guides and the length of the cut is determined by a gauge fixed by the foreman. Consequently boys entering the establishment are usually put at this work first. The boys may sit at the work, stools being provided, but most of them stand during the greater part of the time.

After the tubing has been cut into proper lengths the pieces pass into the hands of a number of women, who make a slight scratch with a diamond at the center, so that when the tube is "warmed in" by the blower before bottoming, as described below, the break may come at the proper point to make the vials of the same capacity The girls put the pieces of tube into a pair of guides, which are so adjusted that the tubing at its center just presses against a small diamond point; then, with a quick motion of their fingers, the women give the tubes a half turn, and thus make a scratch halfway around the tube, which insures that a break will occur at this point when the tube is heated.

After the women have finished this process the pieces pass on to the blowers' workbenches. The blower takes a piece of the tube and puts it on a stand, which is so arranged that the tube is constantly revolved, and one end of it is exposed to a gas flame, which heats that end uniformly. After this end is thoroughly heated the blower takes the piece from the stand, puts on a fresh piece, and then holding the heated end of the tube in the converging flame of two blowpipes heats it until it is completely workable. He then finishes the end of the tubing with an ordinary finisher's tool of miniature size to form the neck of the vial. The same process is repeated until several hundred pieces of tubing have been finished with a neck on one end.

As two vials are to be made of each piece of tubing, the blower next finishes the other end in exactly the same way. After the tube has been finished at both ends it is ready for "bottoming." Before starting to do this the blower shifts the "warming in" stand so that the flame strikes exactly at the center. The piece is now heated at the center until red-hot. The blower takes it and heats it in the hotter blowpipe flame until it is entirely ductile at the center, then pulls the ends apart.

While the glass is still red-hot and malleable the blower presses each of the parts against a flat surface, and thus makes a flat bottom and completes the vial. These vials are now ready for packing.

The work of women in this department comprises the following occupations: First, tending automatic vial and medicine-dropper machines; second, drawing the stems on medicine droppers; third, bottoming machine-made vials and test tubes; fourth, making syringe plungers, and fifth, glazing test tubes and droppers.

AUTOMATIC VIAL AND DROPPER MACHINES.

These two machines, which, similar both in principle and operation and for which a single description will suffice, were designed with the idea of doing away with a large part of hand work in vial and dropper making. The dropper machine is comparatively well tried and fully developed, as it has been in operation at this plant for four years, during which time its form has been greatly modified and its efficiency increased. The vial-making machine, however, has been in operation only a short time, and although even at present a much more complicated machine than the dropper machine, is still capable of much development.

Fundamentally each of these machines consists of the following parts: A feeding trough; an automatic stand, upon which the tube after being released from the trough is kept revolving while the ends are being heated in a gas jet; an automatic revolving carriage, which takes the tube with its ends heated red-hot from the stand and carries it a half revolution to the point where the heated ends are finished by a special tool, similar to an ordinary gaffer's tool, and then throws it out automatically on the other side of the machine.

The machines are entirely automatic, and when they are running properly the only work of the girls who tend the machines consists in seeing that the feeding trough is kept full of tubes and that the collecting trough on the other side of the machine is not choked by an accumulation of finished tubes. The machines, however, are far from perfect, and the tubes frequently become disarranged and interfere with the working of the various parts; the gas sometimes goes out, and various other details of the same kind require constant attention. As two girls are used to tend three dropper machines, they are kept very busy and have to be very careful to see that the machine as a whole is working properly at all times. When the machines were first installed boys were employed to tend them, but after an extended trial it was found that women were much better suited to the work, because of their ability to concentrate their attention on the work. Consequently for the last two years women have been employed exclusively on this work.

When the medicine dropper comes out of the machine, in order to complete the droppers it is necessary to draw the tip, and this is done in a manner exactly similar to that used in the vial-making department when bottoming vials. The half-finished droppers as they come from the machine are put, one tube at a time, on a stand, on which they are kept revolving while they are heated at the exact center by a gas jet. The girl then takes the tube and with a gauge before her pulls it out to exactly twice the length of a single dropper, blowing into one end steadily to keep the tube from sealing at the point.

The tube is then put aside until cool, when it is cracked, leaving two droppers. The points at which the droppers have been cracked are of course ragged. In order to completely finish the dropper and get rid of the jagged ends, the droppers pass to another girl, who reheats them, two at a time, in a blowpipe flame, and thus glazes the ends. In case a dropper with a curved stem is being made, she does this work, i. e., curves the point also and at the same time.

The work of bottoming the machine-made vials is exactly similar to the work done by the men in the vial-making department, and consequently does not require any further description. In bottoming test tubes, instead of pressing the tube against a flat surface, the girl blows gently into the end while whirling the tube in her fingers, and thus gives it a slight bulge at the end. Many of the test tubes and cultures are not given any finish at the upper end other than glazing, which is done by women and is unskilled work.

The plungers for syringes are made of a straight piece of solid glass rod. In order to fashion them so that they will fit the tube of the syringe and carry the plug by which suction is created, it is necessary to have several rings formed on the rod.

To form these rings or collars the girl holds the tube in a flame until it is heated at the proper point just sufficiently viscuous. She then withdraws it and pressing the ends together causes the glass to bulge out and thus form the collar. This work requires considerable skill and experience, not only to judge properly the length of the tube that needs to be heated, but to press the tube perfectly straight, as it is useless otherwise.

GRADUATING AND ETCHING DEPARTMENT.

The work done in this department consists of the graduating and engraving of chemists' ware of various kinds (regular graduates, beakers, pipettes), and of creamery ware, such as cream-testing bottles, and hydrometers. The work is all done by women under the direction of a foreman, who does the acid etching and any off-hand engraving of special ware that is called for. In spite of the fact that the machine etching (described below) gives a much clearer and more easily read figure, there are still many chemists and physicians who prefer the old off-hand deep-cut etching.

The work in this department may be divided into two classes—acid etching and engraving. The women do not work at any one occupation constantly, but are shifted from one sort of work to another. This is done in order that the foreman may not be left short-handed if one of the girls accustomed to doing a certain sort of work should be absent. Ordinarily, however, each girl has her own occupation, so that there may be specialization.

ETCHING.

The system of work pursued here is that ordinarily used in plants doing this class of work.

The article which is to be etched is first prepared by the waxer, who first stops up all openings in it, and then dips it into a bath of molten parafin. As all the acid etching here is graduating, the articles next go to the graduator, who with a machine scratches through the wax the graduating lines. This machine consists of a holder in which the waxed article is firmly held, a pivoted arm, one end of which bears a needle, while the other end rests on a brass arc calibrated into equal divisions, at each division there being a groove into which a tongue on the bottom of the arm fits. The holder mentioned above is also pivoted at each end and so connected to a lever arm attached to the needle-bearing arm mentiond above that it can be rotated. In calibrating, the girl sets the needle arm at the point on the brass arc corresponding to the first division on the article which she wishes to make and pushes the tongue on the arm down into its groove. This causes the needle to be pressed hard against the surface of the waxed article; she then presses down the lever which rotates the holder a distance corresponding to the length of line which is to represent the first division on the waxed article; that is, if it is a primary division, she presses down the lever twice as far as if it is one of the secondary divisions on the scale.

This causes the holder to be rotated and a mark of the proper length to be scratched through the wax by the needle. She next moves the arm along the calibrated arc until it reaches the next division. This causes the needle on the other end of the arm to be moved along the surface of the article in the opposite direction. The tongue is put into the groove, the lever pressed down, and a second mark made through the waxed surface. This process is repeated until the entire scale has been scratched through the wax.

The article is now ready to have the scale divisions numbered as on a thermometer. This machine resembles somewhat the graduating machine. It consists of a long arm hung in gimbals so as to admit of free movement both up and down and from side to side, which is mounted upon a rolling carriage. Instead of the calibrated arc, this machine has a brass plate in which the numerals which are to be scratched upon the tube are deeply cut. At one end of the arm is a needle, and at the other is a pointer by which the figures cut into the brass plate can be followed. When the girl moves the end of the arm bearing the pointer so as to follow the outlines of the figures cut into the plate, the other end bearing the needle is caused by a pantographlike arrangement incorporated in the arm mentioned above to make exactly similar motions, though on a smaller scale, and thus scratch upon the waxed surface small figures exactly similar to those cut into the brass plate.

The article after being graduated and numbered is now ready to go to the etcher, who dips the articles into a diluted solution of hydrofluoric acid. This work is all done in a small separate room and under a hood, which has a very strong exhaust. When engaged in this work the foreman wears a cap and a pair of rubber gloves. The danger of injury from hydrofluoric fumes is recognized by this establishment, and no one is allowed in this room at any time except the foreman. The hydrofluoric acid eats away the surface of the glass wherever it is not protected by the wax.

The articles next go to the washers and wipers, who put the articles into boiling water which melts the wax and leaves the article clean. This completes the acid-etching process.

ENGRAVING.

The engraving done by the women is all machine work and does not require a great amount of skill. The machine used consists of a pantograph arrangement, one arm of which rests over a metal plate into which the patterns, figures, etc., which are to be etched have been deeply cut on a scale about twenty times as large as they are to appear in the final design. The other arm of the machine is attached to an ordinary dental engine, the dentist's tool being replaced by a small carborundum wheel. When the girl moves the pointer of the arm of the machine over the figures on her pattern, the other arm moves exactly synchronously and makes the same movements, except that it is on a much smaller scale. This causes the small tool in the engine which is revolving at a very high speed to move over the surface of any object which is pressed against it and thus etch upon it any designs however complex. This machine is rapidly displacing both the acid etching and the off-hand work, except where very deep or very fine line work is required. The off-hand engraving is all done by the foreman of the department on a copper wheel which is kept wet by a mixture of coal oil and emery dust.

The work of marking the graduates is very particular work and is done by the older and more experienced girls. It consists in pouring into a new graduate a carefully measured amount of mercury and then marking with a fine brush just where the top of the mercury reaches. After the graduates have been marked the graduating lines are put on them by girls who tend a horizontal copper-etching wheel. The beaker or graduate which is to be etched is put into a holder which presses it against the copper disk, and which is connected with a screw attachment so that it can be raised and lowered a very definitely and nicely graded distance at a time.

ASSEMBLING DEPARTMENT.

In this department girls put the rubber caps on the end of medicine droppers, put the rubber plungers in syringes, and then put the parts of the syringe together. The work is very light and easy. The girls may sit or stand, just as they wish.

PACKING DEPARTMENT.

The work in this department consists in selecting the perfect ware from the various departments, sorting it according to size, shape, etc., and packing it in pasteboard boxes for shipment. The work is easy, but requires a good deal of dexterity to keep up with the pace that is set. The girls sit or stand as they please and may change as often as they like.

The plant is, taken as a whole, exceptionally good.

In the establishment used to illustrate conditions in this branch of the glass industry there were 69 women employed at the time of the investigation. Only one was under 16 years of age, and she was 14. Six gave their ages as 16; practically all were under 20. There were a number of young men of the same ages employed. The establishment was in operation 10 hours a day 5 days in the week, 6 hours on Saturday, making a 56-hour week. In the tube cutting and marking department the youths and young women received

$5.50 per week in wages as a rule. One women marker, 19 years of age, got $7. This range of rates (i. e., $5.50 to $7) prevailed generally among the various occupations paid on a weekly basis, except in the etching and graduating department, where rates were from $6.50 to $10 (the highest), the etching-machine operatives receiving the highest pay, viz, $10, $8, $7.50, and $7, one at each rate.

MIRROR MAKING.

The labor of women and girls is not so extensively employed in the manufacture of glass mirrors as it was formerly. The essential reasons for women dropping out of this industry are (1) the greater size of mirrors being made now as compared with former years, the size and thickness of the glass used, since plate glass practically superseded other kinds, together with mechanical devices for handling such; (2) the heat and dirty conditions of the work made it impossible to hold women when opportunities for female employment began its expansion a few years ago; (3) the character of the work tended to attract only a grade of women workers who made trouble along other lines more than offsetting the economic gain; (4) the few women of good character who remained in the industry and became proficient demanded and secured wages so nearly equal to that demanded by men for the same work that the economic incentive for their employment was lost.

Formerly mirrors were made by backing a sheet of glass with an amalgam of mercury and tin. One surface of the glass being overlaid with tinfoil, rubbed down smooth and tight upon the glass, was flooded with quicksilver, which instantly formed an amalgam with the tin. The superfluous mercury was run off, the glass covered with a cloth and kept under pressure for 24 hours, after which the cloth was lifted and the surplus amalgam removed. This is in brief an outline of the old quicksilver amalgam process which made mirror making probably the most unhealthful occupation known, and produced at best a comparatively poor mirror. Fortunately, the method has been almost entirely superseded in this country by the nitrate of silver process, which produces a mirror reflecting from 20 to 25 per cent more light than those made by the quicksilver process and affords labor conditions more tolerable.

The process now in use involves the following operations: (1) the glass, usually plate, is selected; (2) cut into the desired sizes; (3) the edges are then beveled, and (4) polished; (5) washed or scrubbed; (6) silvered; (7) shellacked or varnished, and (8) painted. After this the processes are those connected with the (9) framing of the mirror; (10) packing and shipping.

The selectors examine the pieces for flaws, and after the beveling and polishing processes inspect again for flaws or blemishes produced by that process. They stand at their work.

Beveling is done by machines operated occasionally by women. The plates, cut to size, are placed upon a flat plane and secured tightly; grinding wheels mechanically propelled are held up against the edges adjusted to the beveling angle. These grind away the glass. The women usually stand. The wages are 12½ cents an hour.

Polishing the beveled edges is usually done by mechanical devices, though sometimes by hand. The polishing material is a preparation of finely pulverized oxide of iron. Rotary disks covered with felt, saturated with the preparation and rotating rapidly, are kept passing constantly over the surface desired to be polished. That is to say, the process of beveling and polishing glass to be used for mirrors is precisely that of cutting glass for any ornamental purpose. The bevel-polishing machines are constructed to work on two sides of a sheet of glass at once, hence two girls are required to operate one machine, one girl on each side The work is dirty, wet, and sloppy. A field agent's report says: "All employed here were covered from head to feet with red from the oxide, and one girl's apron and skirt were entirely worn away in places." Nine women were found polishing in this plant, one 16, three 17, three 19, one 21, and one 27 years of age. The wages were from 7 to 15 cents an hour; 6 of the 9 getting less than 10 cents an hour, one 11⅔, and two 15 cents. It was a 10-hour day.

If the sheet of glass to be silvered is large, it is laid on the flat, warm top of a table; if smaller, it is laid in a shallow box. The women silverers get the prepared chemicals from the foreman or chemist. These consist of nitrate of silver dissolved in an ammonia solution; the silver is precipitated by a solution of tartaric acid, aided by the heat of the room or table upon which the glass is placed. This solution is poured over the upper surface of the glass, the nitrate of silver is precipitated by the action of the heat and the tartaric acid, forming a shining surface of metallic silver over the surface of the glass. This surface is then wiped dry and later is backed by a coat of shellac or varnish and usually by a coat of red-lead paint.

The women engaged in this occupation of silvering work in a hot, close room, almost without ventilation. It is claimed that 104° F. is necessary to secure the best results, and this was about the temperature found in the silvering rooms visited. The women stand and stoop at the work. The wages were 18 cents an hour. In only one case was a female silverer found working at as low a rate as 13 cents. One girl 17 was found, but usually the women in the occupation were above 20.

Another part of the work of mirror making quite commonly performed by women is that of frame fitting. The pieces of wood for the frames are measured and cut to match by men, but the fitting and fastening the frames together is quite commonly done by women. The framing of small mirrors in cheap tin or other metallic frames is commonly done by women operating a mechanical device.

The only child or girl under 16 found in the industry was doing this class of work. She was 14 years old, employed in a Pennsylvania establishment at 5⅔ cents an hour, 10 hours a day, 60 hours per week; working with her at the same work (there were but two of this occupation in this plant) was a woman 61 years of age, receiving 6⅔ cents an hour.

But three establishments making mirrors and employing women were investigated for this report. These were employing 66 at the time, but this was during the panic, their normal number being something over a hundred. The average wage of those actually on the pay roll at the time of the investigation was 10 cents per hour. The establishments scheduled were from three States, New York, New Jersey, and Pennsylvania. As stated above, the tendency seems to be rather to decrease than to increase the employment of women in this industry. Below are statements from two firms that had formerly employed women, but at the time of the investigation had ceased to do so. These statements are from firms in New York City:

> We have not had women as grinders, polishers, or silverers for five or six years. The women that went into those trades were generally of a low moral order. The work was dirty and sloppy and you could not expect it to be otherwise. The women were few in number as compared with the men, and the latter being also of a low moral order they fell an easy prey to them. The conditions got to be such that I could not stand it any longer, and the women having got to be more bother than they were worth I let them all go with the exception of the two I kept in other positions by themselves.

Another man said he let the girls go about six years ago. They could not get them to observe any rules made in regard to the care of their health. For instance, they had wooden shoes for them, the work being wet and sloppy, but they would not wear them. They would wear high-heeled shoes instead, so that some of them were nearly always sick. He said there were loose relations between the girls and the foreman and between the girls and the other men. When one of the girls assumed these relations with the foreman she did as she pleased. It resulted that there was no discipline or organization in the establishment while the girls were there. He added:

> When the girls got to be expert they received about as much or nearly as much money as the men. Economy, in the first place, was the object in employing them. There were not many girls that would

take up this kind of trade, as it was not a choice one. They prefer to work in a store or some other genteel employment. So when they got to be expert they commanded about as much or nearly as much wages as men. Then some one else would come along and by offering them a little more money would take them away from me. If there was any money saved by employing them, it was disproportionate to the bother and nuisance.

A large number of mirror manufacturers who had formerly employed women, but who had ceased to do so, spoke along the same line.

CHAPTER XIV.

HOURS OF LABOR, NIGHT WORK, AND OVERTIME OF WOMEN AND GIRLS.

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HOURS OF LABOR.

The information concerning the hours of labor and earnings of women and girls employed in the leer room and the finishing room, presented in this and the following chapter, will not specially distinguish the two classes of work. The leer room, as has been explained, is commonly quite distinct from the finishing room, but as regards hours and earnings the distinction is of no importance. Also, for the sake of brevity, the simple term "finishing department," when the meaning is otherwise clear, will be used broadly to include the leer room as well as the finishing room proper.

The information regarding hours of labor in the finishing departments was obtained and is presented in the following pages in precisely the same way as that described for the corresponding data for the furnace room. In every case the data were obtained direct from the pay rolls of the establishments investigated and showed the facts for a selected pay-roll period, which was, as a rule, the one just prior to the investigation by the agent of the Bureau in 1907 or 1908. Care was taken, however, that the period selected should be one when the factory was running the full time and approximately the normal number of employees was at work. When the pay roll was for a period longer than a week, the figures were reduced to a weekly basis in order to permit of proper comparison.

The pay-roll information in regard to hours worked, which furnishes the basis of the tables and discussion in the following pages, relates to 3,971 females 16 years of age and over, 582 girls under 16 years, and 113 boys under 16, all these persons being employed outside the furnace room in 116 factories.

Of the 3,971 women employed in the finishing departments investigated only 10 were reported as working on a night shift, and as far as could be ascertained, none of the children in this department was ever so employed. Of the 10 women who did work at night, 4 were employed in a Pennsylvania factory at the occupation of taking off the leer and 6 were employed as wrappers in an Ohio factory. In both of these instances the women concerned alternated weekly between day and night work. In the first instance the hours of labor were 50¼ per week on the day shift and 42½ on the night shift; in the second instance the corresponding hours were 58 and 45 hours per week; in both, 5 nights constituted a full week's work.(a)

The remaining 3,961 women and all of the 695 children in the finishing department confined themselves to day work. Their hours of labor showed considerable diversity, varying from 44 to 66 hours per week. The exact distribution of these persons according to the length of their working weeks was as follows, fractions of hours being reduced to the next lowest unit:

HOURS OF LABOR OF WOMEN AND CHILDREN IN THE FINISHING DEPARTMENT.

Hours per week.	Females 16 years and over.			Females under 16 years.			Males under 16 years.		
	Number working specified hours.	Per cent working—		Number working specified hours.	Per cent working—		Number working specified hours.	Per cent working—	
		Specified hours.	Specified hours or less.		Specified hours.	Specified hours or less.		Specified hours.	Specified hours or less.
44	....	....	....	5	0.9	0.9	....	....	....
45	16	0.4	0.4	....	....	....	1	0.9	0.9
46	....	....	....	....	....	....	1	.9	1.8
47	2	(a)	.5	2	.3	1.2	....	....	....
48	12	.3	.8	22	3.8	5.0	6	5.3	7.1
49	....	....	....	1	.2	5.2	....	....	....
50	40	1.0	1.8	10	1.7	6.9	15	13.3	20.4
51	56	1.4	3.2	....	....	....	....	....	....
52	20	.5	3.7	5	.9	7.7	....	....	....
53	182	4.6	8.3	16	2.7	10.5	5	4.4	24.8
54	115	2.9	11.2	6	1.0	11.5	....	....	....
55	591	14.9	26.1	131	22.5	34.0	5	4.4	29.2
56	[b] 261	6.6	32.7	[b] 21	3.6	37.6	1	.9	30.1
57	208	5.3	37.9	26	4.5	42.1	14	12.4	42.5
58	1,492	37.7	75.6	242	41.6	83.7	58	51.3	93.8
59	746	18.8	94.4	45	7.7	91.4	5	4.4	98.2
60	220	5.6	100.0	50	8.6	100.0	2	1.8	100.0
Total	3,961	100.0	....	582	100.0	....	113	100.0	....

[a] Less than one-tenth of 1 per cent.

[b] Including one factory in which the hours per week are 58 for one-half of the year and 55 for the other, an average of 56½ hours per week.

In the examination of this table the males under 16 years of age may be disregarded. Their total number is too small to permit of satisfactory generalization and their hours of labor, in any case, present no peculiar features. Limiting attention, therefore, to women and girls, certain of the more significant points may be briefly emphasized. In the first place, it appears that very few of the persons concerned worked as much as 60 hours a week, and none worked more than 60 hours. The great majority, 83 per cent of the women and 80 per cent of the girls, were concentrated in the group 55 to 59 hours, inclusive, the point of greatest density being clearly marked at 58 hours. Below the 55-hour limit there were approximately 11 per cent of both women and girls. This lower group was widely scattered, more than 100 individuals having a working week as short as 50 hours and 21 as short a week as 46 hours.

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[a] For details regarding this night work, see pp. 386–389.

With few exceptions, the shorter working week for females occurred in the leer room occupations of taking off the leer, sorting, and packing, while those persons whose week was of 55 hours or more were engaged in the finishing occupations proper. As the leer room occupations for women occur chiefly in bottle and jar factories, this is almost equivalent to saying that in bottle and jar factories the working time for females was shorter than for the female employees of the tableware and shade factories. This distinction does not hold in all cases, but it is true as a marked tendency. There is, moreover, a trade reason for the distinction. The leer room is closely connected with the furnace room; the work done in the former is almost a direct continuation of that done in the latter. As a result, the hours of labor tend toward uniformity. A bottle packer in the leer room, for instance, keeps more or less exact pace with the output of a certain proportion of the shops engaged in making the bottles in the furnace room. As the bottles are packed after they are cold, there is no necessity for thus synchronizing the work, but such an arrangement is usually found most economical. As a result, the packer's hours of labor tend to conform rather closely to the hours of labor observed by the blowers, who, for the most part, work the comparatively short week of either 49½ or 50¼ hours. Thus to a considerable extent the working hours of the blowers influence the working hours of the persons in the leer room, although by no means in the same exact degree as they control the working hours of the furnace room boys.

In the finishing room proper there is no such influence at work. The hours of labor here are influenced by no external authority or business necessities. The employer is at liberty to operate this portion of his plant upon a distinct working system from that used in the furnace room division and he usually elects to do so. Moreover, there are no customary hours of labor in the finishing room, none, that is to say, which have become in any way fixed or traditional in the trade. The most usual working week is, as has been mentioned, one of 58 hours, and to a certain degree this is commonly recognized as a normal week.

A shorter working day on Saturday is practically universal, except with those persons whose total number of hours per week is 60, 10 for each working day in the week. Otherwise some deduction of time is almost always made on Saturday, the amount of the deduction, however, being by no means uniform. A 59-hour week usually means 10 hours from Monday to Friday and 9 hours on Saturday. Similarly a 58, 57, 56 and, less commonly, a 55 hour week means 10 hours for the first five days and the odd number of hours, 8, 7, 6, or 5, on Saturday. Detailed analysis of the data upon this point is not necessary.

The customary time for the finishing department to begin work is 7 a. m. In a few cases the factory does not start until as late as 7.30

o'clock, but in only two cases is the commencing hour earlier than 7 a. m. The time of quitting varies, of course, with the length of the work day and the length of the lunch periods. Details upon the matter of the time allowed for lunch are given in the section on lunch rooms (pp. 346–348). It is sufficient to repeat here that the meal period is one hour or more for one half of the women, and between thirty and sixty minutes for the other half. Special rest periods, such as are quite frequent in the furnace room, were found to exist in none of the finishing rooms proper, but in 11 factories it was found that the rest periods allowed to furnace room workers had been extended, in full or in part, to the workers in the leer room, the packers, sorters, leer tenders, etc. In six of these instances, the two full "tempo s" of fifteen minutes each were allowed; in the other five instances only one such period was allowed. In total the number of females and children in the leer room thus affected by the privilege of rest periods was very small, not more than 5 per cent of the grand total of such persons scheduled. In the finishing room proper, where the great majority of the females are employed, the rest period idea has never made serious headway.

The degree in which the length of the working week varies from state to state is shown in the next two tables. These two tables taken together offer in themselves a full picture of the weekly hours of labor for women and children in the finishing divisions of the glass factories. The children are here combined, their numbers being insufficient to warrant separate tabulation for the sexes and the similarity of their work offering no reason for separation.

FEMALES 16 AND OVER IN THE FINISHING DEPARTMENT CLASSIFIED BY WEEKLY WORKING HOURS, BY STATES.

Hours per week.	Number working specified hours in—											
	Massachusetts and Connecticut.	New York.	New Jersey.	Pennsylvania.	Ohio.	Indiana.	Illinois.	Kansas and Missouri.	West Virginia.	Maryland.	Virginia.	Total.
45				16								16
47							2					2
48				12								12
50				30		10						40
51							52		4			56
52				20								20
53		70	33	34	5		25		3	10	2	182
54			4		10	47	43	9	2			115
55			1	225	179	144	10		32			591
56	[a] 55			90		57	50		9			261
57				90	60	3			55			208
58	56	15	85	584	301				451			1,492
59		175	14	142	154	8	185	38	11	19		746
60				41	2	100		37	40			220
Total	111	260	137	1,284	711	369	367	84	607	29	2	3,961

[a] Includes one factory in which the hours per week are 58 for one half the year and 55 for the other half, an average of 56½ hours.

CHILDREN UNDER 16 IN THE FINISHING DEPARTMENT CLASSIFIED BY WEEKLY WORKING HOURS, BY STATES.

Hours per week.	Number working specified hours in—										
	Massachusetts and Connecticut.	New York.	New Jersey.	Pennsylvania.	Ohio.	Indiana.	Illinois.	Kansas and Missouri.	West Virginia.	Maryland.	All States.
44		5									5
45							1				1
46							1				1
47							2				2
48		4		18			6				28
49					1						1
50				24		1					25
52				5							5
53		14	7								21
54			2		1	3					6
55			2	95	15	22			2		136
56	a 3			9		7			3		a 22
57				36		2			2		40
58	18		18	158	19				87		300
59			8	15	22				3	2	50
60				24		5		3	20		52
Total.	21	23	37	384	58	40	10	3	117	2	695

a Includes one factory in which the hours per week are 58 for one half the year and 55 for the other half, an average of 56½ hours.

Comparison of the data in these two tables is rendered easier by means of the following table. This table shows for each State the percentage of women and children working less than certain specified hours per week. The States are arranged in decreasing order, 58 hours being used as a standard.

HOURS OF LABOR OF WOMEN AND CHILDREN IN FINISHING DEPARTMENT, BY STATES.

State.	Females 16 years and over.					State.	Children under 16 years.				
	Number of persons.	Per cent working less hours per week than—					Number of persons.	Per cent working less hours per week than—			
		58.	56.	54.	52.			58.	56.	54.	52.
Virginia	2	100.0	100.0	100.0		Illinois	10	100.0	100.0	100.0	100.0
Indiana	369	70.7	54.5	2.7	2.7	New York	23	100.0	100.0	100.0	39.1
Illinois	367	49.6	36.0	21.5	14.7	Indiana	40	87.5	65.0	2.5	2.5
Massachusetts and Connecticut	111	49.5				Pennsylvania	384	48.7	37.0	12.2	10.9
Pennsylvania	1,284	40.3	26.2	8.7	4.5	New Jersey	37	29.7	29.7	18.9	
Ohio	711	35.7	27.3	.7		Ohio	58	29.3	29.3	1.7	1.7
Maryland	29	34.5	34.5	34.5		Massachusetts and Connecticut	21	14.3			
New Jersey	137	27.7	27.7	24.1		West Virginia	117	6.0	1.7		
New York	260	26.9	26.9	26.9		Kansas and Missouri	3				
West Virginia	607	17.3	6.8	1.2	.7	Maryland	2				
Kansas and Missouri	84	10.7	10.7								
Total	3,961					Total	695				

Examination of the percentage figures of this table shows a considerable degree of variation in the hours of labor in the different States. Thus, to cite two striking contrasts: In Indiana the percentage of women working less than 58 hours is 70.7, whereas in West Virginia it is only 17.3; in Illinois 14.7 per cent of the women work less than 52 hours per week, whereas in Pennsylvania, the State in which the next largest proportion of women work under 52 hours per week, the percentage is only 4.5. With the children the contrasts are even more marked, chiefly because of the legal limitation imposed in some States upon the hours of labor of such persons. These laws were not always strictly observed, but they were always very influential, and in the States having restrictive regulations, Illinois and New York particularly, the usual working week for children was much shorter than in those States where there were no laws upon the subject.

NIGHT WORK OF WOMEN AND GIRLS.

Night work, in the sense of working on a night shift, is as uncommon among the female employees in the glass industry as it is common among the boys and men. No cases were found of girls under 16 working on a night shift and only 56 of the scheduled women were so employed. The infrequency of the practice as thus indicated may be attributed to three causes—to the custom of the industry, to its disapproval by most manufacturers, and, in some States, to the law.

For a number of years, and especially since the introduction of the continuous tank furnace, the system of operating two shifts of workers, one by day and one by night, has become an established feature in the majority of furnace rooms. The work of the furnace room, however, primarily concerns men and boys, there being only two factories where women are employed at furnace-room occupations. Most of the women work in the finishing department and probably no manufacturer has ever found any palpable economy in running this department with two shifts of workers. In busy seasons the regular force may be, and frequently is, required to work beyond the usual closing hour, but a second shift is rarely, if ever, added. There remains the department known as the leer room, which employs a number of women workers, and which from the standpoint of two-shift work occupies an intermediate position between the furnace room, in which night work is the rule, and the finishing department, in which it is practically absent. If the furnace room operates by night, part of the work of the leer room, that known as taking off the leer, is also continued, but the rest, sorting, packing, etc., may easily be postponed until the following day, and usually is postponed. As women at times fill all these leer-room occupations, there is some opportunity for their being worked on a two-shift system. As yet, however, the custom of the industry is rather opposed to such work for women.

With very few exceptions all of the employers interviewed, as also the managers, superintendents, and foremen, expressed themselves as opposed to the presence of women in a glass factory at night. The opposition was partly on physical grounds, that night work entails certain consequent effects on health which day work does not entail; but of much greater insistence was the moral objection. The furnace room and leer room, it was agreed, are not proper places for a woman at night. The whole atmosphere of the place is bad; coarseness of conversation is notoriously worse by night, and the presence of women often acts as an aggravation, rarely as a deterrent. The finishing department is not necessarily affected by the tone of the blow room or leer room, but the chance of its escaping is rather small. This is the majority opinion. A few manufacturers did not take this view, but their attitude was not so much one of defense of the practice as it was one of cynical indifference to the moral aspect of the matter.

In four States the law acts as a deterrent of night work for women. Massachusetts, New York, and Indiana absolutely prohibit night work for all females. Ohio makes a prohibition for females under 18. When the prohibition is absolute, the enforcement of the law is a matter of comparative ease. When, however, the prohibition extends only to women below a certain age, as is the case in Ohio, its proper enforcement is much more difficult. It throws the decision as to age upon the judgment of the inspecting force, a decision which in the case of women is often a matter of considerable difficulty. In the remaining thirteen States covered by this investigation—Connecticut, Georgia, Illinois, Kansas, Maryland, Missouri, New Jersey, Pennsylvania, South Carolina, Tennessee, Virginia, West Virginia, and Wisconsin—there were no laws in existence to restrain women from working regularly on a night shift.

As a result of these several causes the employment of women on night shifts has been closely limited. At the time of the present investigation women were found to be so employed in only four establishments, and in only three others was there indication of such a practice having been indulged in during the preceding several years. Of these four exceptional establishments which do employ women on a night shift two are unique in that they are the only glass factories in the country employing women in place of boys in the blow room. It is by these women, all of the Negro race, that night-shift work was being done. The women, taking the places traditionally filled by boys, were expected to do the same work as the boys would do. Thus, as both factories work a night shift as well as a day shift, the women, or at least a majority of them (46 out of 78 of those scheduled), regularly alternated between day and night work. The women, for the most part, did not object to the alternating system of work, especially as the average pay for night work was somewhat higher. In both factories the working time on the night shift is 8½ hours, from 5.15 p. m. to 3.15 a. m., with 1½ hours for lunch and resting. The unfortunate situation arising from the use of women at blow-room work has already been discussed in detail in the section on boys' work. Here it is sufficient to repeat that their employment in these two factories is to be entirely attributed to their color. There have been attempts made to employ white women at furnace-room work, but public opinion caused the practice to be discontinued in each case after a brief period of trial.

The third instance of a night shift for women was found in an Ohio factory. At the time of the investigation six women were found to be regularly employed on the night shift, but the number was, no doubt, subject to some increase with greater business prosperity. The work done was exclusively the selecting of finished ware. The working time was 9 hours, from 6.30 p. m. to 4.30 a. m., with 1 hour at midnight for lunch. No work was done Saturday or Sunday nights, so that a full week's work consisted of 45 hours. For these 45 hours' work, the night selectors were paid $6, or at the rate of 13⅓ cents an hour, approximately 50 per cent higher than the rate paid the day selectors. The work itself was fairly clean and light, and the women employed were almost entirely segregated from the men.

The fourth factory employing women at night-shift work was located in Pennsylvania. The occupation concerned was that of taking off the leer, the number of women four. The women alternated weekly between day and night work, working 6 days one week and 5 nights the following week. The wage was $1 per day. The hours of work on the night shift were 8½, from 5.15 p. m. to 2.30 a. m., with three-quarters of an hour for lunch and rest. As has been elsewhere pointed out, the occupation of taking off the leer is normally one of great disagreeableness. In this particular factory the feature of excessive heat is added, and in such intensity in the warmer months at least as to cause the women employed at the work to prefer the night shift for the sake of the greater coolness.

Concerning the physical effects of night work upon women, irregular sleep, irregular eating, etc., the conclusions are very much the same as those arrived at in discussing the night work of boys. With the women, however, it is the moral aspect of the subject that requires special emphasis. As has been pointed out before, even under the most favorable circumstances, the atmosphere of a glass factory at night tends to be of a more vulgarizing character than that of the same factory in the day. This is largely a psychological matter but it is based on observations in many factories and is recognized as true.

The more evil tendencies of the workers, of the men especially, appear most strongly at night, and it was everywhere observed that the character of the conversation and jesting is at its worst on the night shift. It is not implied, of course, that all or nearly all of the workers are of a character to be so affected, but in practically all factories there are enough such persons to influence the others and affect the whole tone of the establishment.

Besides this general objection to night work for women, there is the specific one of the woman's having to return home in the night or early morning. In the four factories noted above, the closing hours of the night shift were, in two cases, 3.15 a. m., in the third 4.30 a. m., and in the fourth 2.30 a. m. In most cases the women concerned did not live in the immediate vicinity of the place at which they worked. As they could not decently remain at the factory until daybreak, they were forced to return home at the most unpleasant part of the night, and in many cases by a dismal and dangerous route.

OVERTIME WORK OF WOMEN AND GIRLS.

In the glass industry there exist, as was earlier pointed out, two distinct forms of overtime work. In the first place, there is the form known as double shift, which arises when an employee, in addition to his regular day or night shift, works the whole or part of the immediately succeeding shift, all within a period of twenty-four hours. This can occur, of course, only in such factories as work night and day. In the second place, there is the overtime which consists in working beyond the established and published hour of working. It is in this sense that the word is commonly understood. There is, however, a very considerable importance in the distinction made. Double-shift work is liable to a seriousness of abuse that is almost impossible with the simpler form of working beyond the formal hour of closing, as serious as the latter sometimes is.

As was described in an earlier section, double-shift work is common among the boys of the furnace room. But among the women of the glass factory it is rare, largely because few women work in the furnace room. Being a corollary of night work, double shift is impossible when there are not two shifts of workers. The two-shift system is prevalent in the furnace room, but it is almost absent in the divisions of the factory where nearly all the women are employed. In the section on night work four factories were mentioned as being the only factories in which women were employed on a night shift. Two of these four were the exceptional western factories which employed Negro women in place of boys in the furnace room. The other two employed white women on a night shift, but not in the furnace room. Investigation among the white women at the latter two factories developed no cases of double-shift work, but investigation among the colored women at the larger of the former two factories developed considerable frequency of double-shift work. From the nature of furnace-room work, this was to be expected. These women were taking the places of boys, and were subject to the same conditions which cause boys to work overtime. It did not appear that the factory exercised any pressure in the matter. When help was scarce the women were sometimes asked to work overtime, but, if they objected, their refusal was accepted in good part. At times the women themselves asked for an opportunity to earn double pay by working double time. Of the 45 women investigated on this point 7 worked double shift on a total of 36 occasions. Each woman had worked at least once on a full double shift, i. e., 17 hours of actual work and 20 hours' presence in the factory per day. One woman worked three full double shifts in succession.

It may be said, therefore, that double-shift work among women is limited in its present extent. It is not impossible that the use of colored women at furnace-room work may be extended, and, if so, double-shift work will no doubt be done by them as it is done by the displaced boys. For, as has been pointed out, if a night shift is operated in the furnace room, the inducements to double-shift work are almost certain to be unresisted on occasions of labor scarcity. A simple legal limitation upon daily or weekly hours of work is rarely an effective deterrent either with women or boys.

But, whatever may be the future use of colored women in the furnace room, it is unlikely that white women will be so employed. The white women will be employed, as at present, in the finishing room or in the leer room. Here night work is now very rare, but even if it should extend it is not probable that it will bring double-shift work in its train, for in the occupations of these departments there is little occasion to work double shift even where the existence of a night shift makes it possible. In the furnace room double shift exists primarily because of the dependence of the blowers upon their unskilled helpers, the absence of one such helper being sufficient to cripple a whole shop of 6 to 9 members But outside the furnace room there is no such economic pressure to induce double-shift working. The work is not coordinated, and the absence of one employee normally causes the loss of only his or her own labor.

In contrast with the rarity of double-shift work among women there is a considerable frequency of the second form of overtime work, that of working beyond the formal closing hour. The present investigation developed a large percentage, and the indications were that in normal business years it is a very exceptional glass factory which does not work its female employees overtime on occasion. In the leer room, with the packers and the sorters, the occasion arises frequently, but with no regularity. In the finishing room the overtime is largely seasonal. Cut glass, shade, and tableware factories are all more or less affected by a seasonal rush, at which times extra-hour work is the easiest solution of a difficult problem.

As far as could be ascertained such overtime work on the part of women and girls in the glass industry is entirely occasional. No instance was found of a factory's operating regularly in excess of its established hours. No instances were found of a factory beginning before the established hour or of arbitrarily curtailing the lunch period. The overtime was all of the one kind, that of working beyond the prescribed closing hour. Cases of this kind were numerous, and occasionally serious. Of the 116 factories investigated in which women and girls were employed, 24 reported that overtime had been worked by some of their female employees during the preceding year. The general situation at these factories may be suggested by a few excerpts from the original field reports written at the factory.

Establishment in West Virginia.—In the finishing department overtime is worked at some seasons. Four evenings per week, with three hours' work per evening, is the usual system. For these 3 hours one-half day's pay is allowed.

Establishment in West Virginia.—In normal times overtime is frequest in some departments. The girls and women concerned work the regular ten-hour day and then, after thirty minutes for supper, from 2½ to 3½ hours more.

Establishment in West Virginia.—The grinders and glazers often work overtime two or three nights a week from 7 to 10 o'clock, one hour, 6 to 7, being allowed for lunch. Also the decorators, in busy seasons, work similar overtime, sometimes for two weeks steadily.

Establishment in western Pennsylvania.—Both the manager and foreman of this factory stated repeatedly that there is no night work for females. On the evening of December 30, at 5.30 o'clock, the agent spoke to two girls who came into the furnace room to get some water. They stated that they were going to work extra that evening from 5 to 8 o'clock, and were then having their supper. Further inquiry elicited the information that the girls who chip and cap work overtime frequently, occasionally every evening in the week, and usually two or three evenings a week. They are not required to work overtime, but are asked if they wish to do so. The girls do not know in advance whether they will have overtime work; but they generally bring enough food in the morning for the noon meal and for supper in case they remain. There were about 15 girls working on the evening mentioned, and at 9.30 they were observed to be getting ready to leave.

Reports of this character, however, while suggestive, are not sufficiently specific to permit of generalization. Especially is this so, as a large number of the glass factories were located in States where factory overtime meant exceeding the maximum daily or weekly hours prescribed by law for women, and where, in consequence, there was a presumptive reason for the facts not being divulged. Therefore, in order to obtain information of an accurate and detailed character, personal inquiry was made among 1,057 women and girls, representing 62 establishments. As these numbers are 53 per cent of the total number of establishments investigated employing females and 23 per cent of the females employed at the time, the resultant data may be taken as fairly representative of the real conditions. The inquiry in each case covered the year preceding the date of the investigation. That year was partly one of much prosperity in the industry and partly one of great depression.

As a result of the inquiry referred to it developed that of the 1,057 persons among whom the inquiry was made, 331, representing 39 establishments, worked overtime more or less frequently during the year, for a total of 4,316 separate occasions. This is an average of 13 days of overtime work for each person working overtime. The following table presents these principal facts for women and girls separately:

OVERTIME WORK BY FEMALES.

	All ages.	16 and over.	Under 16.
Total persons reported	1,057	810	247
Number working overtime	331	270	61
Per cent working overtime	31.3	33.3	24.7
Total number of days on which overtime was worked	4,316	3,322	994
Average number of days on which overtime was worked per person	13	12.3	16.3

It appears from this table that approximately one woman or girl out of every three worked some overtime during the year preceding the time of the investigation, and for each of these persons the number of days on which overtime was worked was, on the average, 13. As between girls and women, there was no considerable difference in the frequency of overtime work. The per cent of girls working overtime (24.7) is somewhat lower than the per cent of women (33.3) so working, but, on the other hand, the girls show a somewhat higher average in the number of occasions of overtime work, 16.3 as against 12.3 for women.

The distribution of this overtime work among the States concerned is made in the following table. Maryland is omitted, as only two persons were there reported upon the point at issue, a number which is, of course, insufficient to permit of deductions. The States are arranged in order of overtime frequency. Column 4 is added for reasons explained in the next paragraph.

NUMBER AND PER CENT OF FEMALES WORKING OVERTIME, BY STATES.

State.	Number of females reported.	Number working overtime.	Per cent working overtime.	Per cent of females reported of number employed.
New Jersey	15	13	86.7	10.9
Ohio	124	45	36.3	17.4
Indiana	36	12	33.3	9.8
West Virginia	225	76	33.8	37.1
Pennsylvania	583	180	30.9	45.4
Illinois	22	1	4.5	6.0
New York	50	2	4.0	19.2
Total	[a] 1,055	[a] 329	31.2	28.2

[a] Not including two in Maryland.

The figures in column 3 of this table indicate for each State the proportion of overtime workers to the total number of women and girls reported upon. The number of persons reported upon the matter of overtime was, however, less than the total number employed; and the proportion of persons reported upon is not the same in all the States, as is shown in column 4. On this account the degree in which the frequency of overtime work as indicated in column 3 is to be taken as representative is not uniform for the several States. In Pennsylvania and West Virginia, where 45.4 and 37.1 per cent, respectively, of the persons concerned were reported upon, the indications of the table may be considered accurately representative. In Ohio and New York, where 17.4 and 19.2 per cent were investigated, the indications may also be taken as sufficiently typical. But in New Jersey, Indiana, and Illinois the percentages of persons reported upon are too small to be conclusive upon the point at issue. Even when limited by these considerations, however, the differences and analogies of the figures are highly suggestive upon certain points. Thus it appears in striking fashion that in Illinois and New York very few persons are reported as having worked overtime, whereas in each of the other States the proportion so working was very large. Also, it appears that in this latter group of States, with the exception of New Jersey, in which the number of persons concerned was very small, the frequency of overtime work is noticeably uniform. The conclusion is that the inducements to overtime work are everywhere substantially the same, and in localities where law, factory inspection, and public opinion are not effective the results produced tend to be uniform.

In a preceding table it was shown that the average number of overtime days for each overtime worker was 13. The variations from this average number, however, are very considerable. The table following brings out the significance of these variations by showing the number of overtime days worked by each of the 331 overtime workers. A comparison by States is also made.

NUMBER OF PERSONS WORKING SPECIFIED NUMBER OF OVERTIME DAYS PER YEAR, BY STATES.

	New Jersey.	Ohio.	Indiana.	West Virginia.	Pennsylvania.	Illinois.	New York.	Total.	Per cent.
Under 5 days	8	13	5	15	81	1	1	124	37
5 days, less than 10		13	3	7	53			76	23
10 days, less than 15	5	7	3	8	27			a 52	16
15 days, less than 25		7	1	14	9			31	9
25 days, less than 50		5		28	5			38	12
50 days, less than 100				2	4			6	2
100 days or over				2	1		1	4	1
Total	13	45	12	76	180	1	2	a 331	100

a Including two overtime workers in Maryland.

Considering the two last columns, which show the situation for the combined States, it appears that while approximately two-thirds of the overtime workers so worked on less than ten occasions during the year, a very considerable number did so during a large portion of their working time. Fifteen per cent have to their credit more than 25 days of overtime, and 3 per cent more than 50 days. Of the 4 persons who worked more than 100 days, 2 so worked regularly every working day of the year. As regards state distribution, West Virginia is shown to lead by a considerable margin, 44 of the 76 overtime workers scheduled in that State having so worked on at least 15 occasions, and 32 having so worked on at least 25 occasions.

Statements, such as the preceding, of the number of occasions on which each person worked overtime, while of much significance in themselves, are, of course, incomplete without a knowledge of the length of the overtime periods. A hundred overtime occasions of an hour each are, for instance, of less moment to the health of the worker than twenty occasions of 5 hours each. Unfortunately, upon the point of the exact length of the overtime day, complete information was not obtainable. Sufficient was obtained, however, to make possible a close approximation to the truth. In the first place the maximum daily overtime is known for each of the 331 persons concerned. This is shown in the following table in time groups of one hour, and for women and children separately.

MAXIMUM OVERTIME WORKED BY SPECIFIED NUMBER OF PERSONS.

Overtime in excess of regular factory hours.	All ages.	16 and over.	Under 16.
½ but less than 1 hour	27	23	4
1 but less than 2 hours	49	39	10
2 but less than 3 hours	135	117	18
3 but less than 4 hours	106	79	27
4 but less than 5 hours	11	9	2
5 but less than 6 hours	2	2	
7 but less than 8 hours	1	1	
Total	331	270	61

The maximum overtime for each person, as thus shown, is, of course, not necessarily the usual overtime for that person. It is known, however, that such was the case with at least 50 per cent of the persons in each of the several hourly groups. Concerning the other 50 per cent, the only fact known with certainty is that in no case was the overtime less than one-half hour.

So far the discussion has covered the frequency and average length of overtime work, and the maximum of the individual occasions of overtime. There remains one important aspect of the subject yet to be considered—the extent to which such overtime work is concentrated. In an industry where, as shown in the preceding paragraphs, the majority of those working overtime do so only on a comparatively limited number of occasions per year, the distribution of these occasions is of much significance. The evil effects of, say, thirty days of overtime work are much less when those days are distributed throughout the year than when they are sequential. In the same way, the harm of, say, three days a week overtime may be considerably mitigated by a proportionate abstinence from work during the other days of the week. For these reasons, the day is, for many purposes, too short a unit for measuring the severity of overtime work, and, in the same way, the year is too long. On the whole, the week is the most satisfactory unit. The number of extra hours worked per week indicates with considerable accuracy the hardship undergone by the persons concerned.

The most accurate information upon the subject of weekly overtime is to be derived from the factory pay roll. With very few exceptions all factory pay rolls show the number of hours worked by each employee during the pay-roll period. If the pay roll is for a week, and shows that a person has worked more than the established weekly hours, overtime work is evident. It is to be repeated, however, that weekly overtime thus derived is not necessarily the sum of the overtime worked on specific days of the week. Overtime one day, if balanced by absence on another day, does not appear on the books in the form of extra hours per week. Therefore, weekly overtime derived from a pay roll represents net overtime, and should not be taken as representative of absolute amounts. It is only for the present purpose of showing concentration of overtime work that the pay-roll information is of value.

In the glass industry most of these pay rolls are for weekly periods, and their data are thus immediately available for the determination of weekly overtime. A number, however, are for periods of two weeks, and reduction to a weekly basis is necessary. This is here done by simple halving, although such a method is not entirely satisfactory. It tends to reduce somewhat the actual amount of weekly overtime, as it is manifest that the larger the pay-roll period the more chance there is for daily overtime to be balanced by abstinence from work. The error, however, is small. Also it is to be noted that the data obtained in each case is for a single pay-roll period. In any one establishment, therefore, the period covered can not be assumed to be representative of the whole year. But combining the data obtained in all the establishments covered the results may be taken as fairly representative of conditions in the industry as a whole. With these explanations the information obtained from the pay rolls may be presented as follows:

Of the 116 scheduled factories in which women and girls were employed it appeared that in 27 (or 23.3 per cent) weekly overtime was worked by some of their female employees during the pay-roll period. The total number of those working overtime was 140, 8 per cent of the female employees in these 27 factories and 3 per cent of the total number of such employees in all factories. The exact length of the weekly overtime in each of these 140 cases is shown in the following table.

NUMBER OF FEMALES WORKING SPECIFIED NUMBER OF HOURS WEEKLY OVERTIME.

Amount of weekly overtime in hours.	Number of females working specified number of hours weekly overtime.		
	All ages.	16 and over.	Under 16.
1 hour	13	13	
2 hours	27	23	4
3 hours	22	19	3
4 hours	18	15	3
5 hours	11	8	3
6 hours	2	2	
7 hours	5	5	
8 hours	3	1	2
9 hours	3	3	
10 hours	11	11	
11 hours	5	3	2
12 hours	9	7	2
13 hours	1	1	
15 hours	8	7	1
20 hours	1	1	
25 hours	1	1	
Total	140	120	20

Amount of weekly overtime in hourly group.	Number of females working specified weekly overtime.	Per cent working specified weekly overtime or longer.
1 hour, but less than 2	13	100.0
2 hours, but less than 4	49	90.7
4 hours, but less than 8	36	55.7
8 hours, but less than 12	22	30.0
12 hours, but less than 16	18	14.3
20 hours	1	1.4
25 hours	1	.7
Total	140	

It appears, therefore, that of the 140 persons concerned, 42 (30 per cent) worked more than eight hours overtime per week, and 20 (14 per cent) worked more than twelve hours overtime per week, an average of more than two hours overtime per day. The two extreme cases, those of 20 and 25 hours, respectively, were confined to women, but otherwise the extra work was divided between girls and women in approximately the same proportions.

It may be considered that as a basis for judging the physical hardship of overtime work a simple statement of the length of the weekly overtime is not sufficient; that the overtime length should be related to the length of the regular working week. This relation may easily be made. Of the 140 overtime workers considered above, 112, or 80 per cent, worked a regular week of 58 or 60 hours. The remaining 28 persons worked less than 58 hours but more than 50 hours in all but two exceptional cases, where the weekly hours were 45 and 48, respectively. Practically all the individuals of this latter group, those working less than 58 hours per week, are engaged at the leer-room occupations of packing, sorting, and taking off the leer, and their hours are shorter than usual, because in several factories the hours of the leer room are made to conform more or less exactly to the hours of the furnace room.

In this connection it may be pointed out that on the whole the occupations affected by the shorter hours are those of the greater physical severity. For persons so working, therefore, the added severity of overtime work is possibly proportionately the same as it is for those whose normal week is longer. But this point, not being susceptible of tabular measurement and not applying to a large number of female workers, may be disregarded in the present consideration. In the following table, therefore, which shows the exact length of the week's work, regular hours plus overtime, 58 hours is taken as the minimum, this being the lowest maximum working week for women set by law in any of the States covered by this investigation. In all but 15 of the 140 cases now under consideration the regular hours per week plus overtime exceeded this 58-hour minimum. The excess in each of the other 125 cases is given in detail on next page.

LENGTH OF WEEK'S WORK FOR PERSONS WORKING MORE THAN REGULAR WEEKLY HOURS.

Total hours per week.	Number of persons working specified number of hours per week.			Per cent of persons working specified number of hours per week or more.		
	All ages.	16 and over.	Under 16.	All ages.	16 and over.	Under 16.
Under 58	15	10	5	100.0	100.0	100.0
58 to 60	7	7	....	89.3	91.7	....
60 to 62	35	30	5	84.3	85.8	75.0
62 to 64	38	33	5	59.3	60.8	50.0
64 to 66	6	6	....	32.1	33.3	....
66 to 68	5	3	2	27.9	28.3	25.0
68 to 70	13	12	1	24.3	25.8	15.0
70 to 72	11	10	1	15.0	15.8	10.0
72 to 74	4	4	....	7.1	7.5	....
74 to 76	5	4	1	4.3	4.2	5.0
76	1	1	....	.7	.8	....
Total	140	120	20	....	....	....

It appears from this table that while approximately two-thirds of the 140 persons concerned worked a total week of less than 64 hours; cases of extreme overwork are numerous. Almost one-quarter of the persons worked 68 hours per week, and 15 per cent worked 70 hours or more. Finally, it is to be especially remarked, 9 women and 1 girl worked at least 72 hours per week, an average of more than 12 hours per day.

CHAPTER XV.

EARNINGS OF WOMEN AND GIRLS.

CHAPTER XV.

EARNINGS OF WOMEN AND GIRLS, AS SHOWN BY THE PAY ROLLS.

INTRODUCTION.

The information regarding earnings in the finishing department was obtained and is presented in precisely the same way as that described for the corresponding information for the furnace room. In every case the data were obtained directly from the pay roll, and covered three main points: (1) The amount of money received during the pay-roll period; (2) the number of hours worked to obtain that amount; and (3) the rate of pay, if a time worker, the daily or weekly rate, and the number of hours constituting such a day or week; if a pieceworker, the rate per piece for the articles handled, and the number handled during the period. When the pay roll was for a longer period than a week, the data were reduced to a weekly basis in order to permit of easy comparison.

Of the total of 179 factories scheduled there were 66 which had specific finishing rooms in which women or children or both were employed, and 50 which did not possess finishing rooms but did employ women or children or both in their leer rooms. Thus, in total there were 116 factories in which women and children were employed in occupations outside the furnace room. The normal number of such persons so employed by these several factories in the specified departments was distributed as follows: 3,971 females 16 years of age or over, 582 girls under 16, and 113 boys under 16. Information upon hours of labor was obtained for all these persons; but upon earnings it could be obtained only for those actually at work at the time covered by the pay rolls taken. In the case of boys the number thus obtained was as great as the normal number; in the case of women and children the corresponding numbers were 2,774 and 481, or 69.9 per cent and 82.6 per cent, respectively, of those normally employed. As these percentages are so large, deductions from the obtained data may be taken as conclusive.

Information upon hours of labor and earnings were also obtained for such males of 16 years of age or over as were in competitive occupations with women or children. Exact competition of men and women in the finishing department is, however, very infrequent, and of men and children almost entirely absent. Men are rarely engaged at exactly the same work as women, even when their occupational names are the same. In several cases it was found that women had displaced men at certain occupations, and were working for lower wages than the men formerly received for the same work. Usually, however, the displacement had been complete, the men not remaining in the same occupation, or if so, confining themselves to special classes of work, such as handling the heavy grades of ware, in which women and children did not engage. On this account it has seemed desirable to omit males of 16 and over entirely from the present consideration of working hours and wages. To do otherwise would be misleading.

The tabulations in detail of the data concerning hours and earnings in the glass establishments included in this investigation are presented at the end of this volume. (Tables VI to X.)

CLASSIFIED FULL-TIME WEEKLY EARNINGS.

This summary presents the more general facts regarding the earnings of women and children in the finishing department in the same way that a preceding summary (pp. 125–142) presents such facts for the employees in boys' occupations in the furnace room.

The first table classifies, within one-dollar groupings, the women and children in the finishing department according to the full-time weekly earnings of each. The term "full-time weekly earnings," as here employed, means the amount of money received by an individual who worked full time during the course of a week. The object of the table is to show the financial rewards of women and children in the finishing department under the most favorable conditions of regular employment, etc. For those persons here concerned who did work a full week the entries in the table could be made immediately. For those, however, who lost more or less time during the scheduled week it has been necessary to estimate the amount of their full weekly earnings from the partial data available. For time workers such estimation was simple; the full-time weekly earnings of such workers are substantially identical with their weekly wage rates. For pieceworkers, however, similar computation for those who failed to work full time is not entirely satisfactory. Because a pieceworker earns $3 in thirty hours' work it can not be assumed with accuracy that the full earnings for a week of sixty hours would be $6; for the output, and in consequence the rewards, of a pieceworker are not necessarily the same from day to day or even from hour to hour. In individual cases, indeed, the error resulting from such a method of computation might be important, but when a large number of persons is being considered, as is the case at present, it may be assumed that individual peculiarities balance each other with sufficient exactness to render the combined results substantially representative of real conditions. While, therefore, the information of the table is not absolutely accurate, the margin of error is extremely slight.

CLASSIFIED FULL-TIME WEEKLY EARNINGS OF WOMEN AND CHILDREN IN THE FINISHING DEPARTMENT.

Classified full-time weekly earnings.	Females 16 years and over.		Females under 16 years.		Males under 16 years.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
$2 to $2.99	1	(a)	1	0.2		
$3 to $3.99	228	8.2	184	38.3	19	16.4
$4 to $4.99	852	30.7	205	42.6	44	37.9
$5 to $5.99	693	25.0	57	11.8	21	18.1
$6 to $6.99	559	20.2	23	4.8	24	20.7
$7 to $7.99	196	7.1	7	1.5	6	5.1
$8 to $8.99	96	3.5	2	.4	1	.9
$9 to $9.99	76	2.7	2	.4	1	.9
$10 to $11.99	42	1.5				
$12 to $13.99	20	.7				
$14 and over	11	.4				
Total	2,774	100.0	481	100.0	116	100.0

[a] Less than one-tenth of 1 per cent.

The entries of this table show the earning capacity of the persons concerned and the amounts they earn under the most favorable conditions. It appears from it that the possible earnings of women in the glass industry are low and comparatively rigid. The great majority, 84 per cent, are working for wages which return them at best not as much as $7 a week, and almost 31 per cent are condensed in the one grouping between $4 and $5. Thirty-one women earned as much as $12 a week and eleven as much as $14.

The earnings of female children under 16 require no comment. They are industrially but immature women and are regarded and paid as such by the employer. In the case of males under 16, however, it is to be noted that their full weekly earnings are much higher than those for females of the same age and almost as high as those for adult women. The explanation of this probably lies in the fact that, as most of the factories concerned also have furnace rooms, there was alternative work open to these boys—work, moreover, where the wage level for males under 16 was much higher normally than it was anywhere else in the same communities for persons of the same age. The competition between these employments tended to raise the level of boys' wages in the finishing department to the level of the furnace room.

FULL-TIME AND PART-TIME WORKERS.

The above data exhibit, to repeat, the maximum earning capacity of women and children in the finishing department and the amount earned provided full time is worked. Approximately one-half of the persons here concerned did work full time during the week scheduled and thus received their maximum earnings. The others, whether or not through their own fault, fell short of full-time work, and to the extent they did so failed to earn the maximum. The distribution of all the individuals concerned according to the number of days worked by each is shown in the following table, details being omitted for those who worked less than three days a week.

NUMBER AND PER CENT OF WOMEN AND CHILDREN IN THE FINISHING DEPARTMENT WHO WORKED FULL TIME AND LESS, BY NUMBER OF DAYS WORKED PER WEEK.

Days worked per week.	Females 16 years and over.		Females under 16 years.		Males under 16 years.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Full time, 6 days	1,386	50.0	238	49.5	63	54.3
5 days and less than 6	627	22.6	97	20.1	17	14.6
4 days and less than 5	358	12.9	62	12.9	22	19.0
3 days and less than 4	239	8.6	62	12.9	9	7.8
Less than 3 days	164	5.9	22	4.6	5	4.3
Total	2,774	100.0	481	100.0	116	100.0

Using the percentage columns of this table as guides, it appears that almost exactly one-half of the women and girls and slightly less than one-half of the boys failed to work a full week. The degree of failure varied in the three classes, but there were comparatively few in any class who worked less than a half week.

CLASSIFIED ACTUAL WEEKLY EARNINGS.

The effect of this loss of time upon income is shown in the next table, which classifies the individuals concerned according to their actual earnings, that is to say, according to the amount actually received by each during the week scheduled.

CLASSIFIED ACTUAL WEEKLY EARNINGS OF WOMEN AND CHILDREN IN FINISHING DEPARTMENT.

Classified actual weekly earnings.	Females 16 years and over.		Females under 16 years.		Males under 16 years.	
	Number of persons.	Per cent.	Number of persons.	Per cent.	Number of persons.	Per cent.
Under $2	120	4.3	51	10.6	5	4.3
$2 to $2.99	218	7.9	81	16.8	19	16.4
$3 to $3.99	462	16.7	146	30.4	21	18.1
$4 to $4.99	767	27.6	137	28.5	29	25.0
$5 to $5.99	545	19.6	42	8.7	22	19.0
$6 to $6.99	346	12.5	15	3.1	14	12.1
$7 to $7.99	144	5.2	6	1.3	4	3.4
$8 to $8.99	66	2.4	1	0.2	2	1.7
$9 to $9.99	54	1.9	2	0.4		
$10 to $11.99	32	1.2				
$12 to $13.99	14	0.5				
$14 and over	6	0.2				
Total	2,774	100.0	481	100.0	116	100.0

The items of this table relating to the actual earnings of women are of great importance. The standard of living of an individual during a given period depends upon actual earnings, not upon possible earnings. Thus, it is of much significance to note that of the 2,774 women glassworkers 338, 12.2 per cent of the total, received at the end of a given week less than $3; 1,567, 56.5 per cent, less than $5 a week; and less than 12 per cent as much as $7 a week. At one extreme there were 120 who received less than $2 a week, and at the other 20 who received as much as or more than $12.

In order to permit of direct comparison between the actual weekly earnings of women as shown in this table and their full weekly earnings as earlier shown, the following table has been prepared. This table exhibits in parallel columns the two series of facts and brings them into contrast by means of corresponding columns, showing the percentages of each class receiving no more than certain specified amounts.

FULL-TIME AND ACTUAL WEEKLY EARNINGS OF WOMEN IN FINISHING DEPARTMENT COMPARED.

Classified earnings.	Number earning specified amount.		Per cent earning specified amount.		Cumulative percentage. (a)	
	Full-time earnings.	Actual earnings.	Full-time earnings.	Actual earnings.	Full-time earnings.	Actual earnings.
Under $2	....	120	....	4.3	....	4.3
$2 to $2.99	1	218	(b)	7.9	(b)	12.2
$3 to $3.99	228	462	8.2	16.7	8.2	28.9
$4 to $4.99	852	767	30.7	27.6	38.9	56.5
$5 to $5.99	693	545	25.0	19.6	63.9	76.1
$6 to $6.99	559	346	20.2	12.5	84.1	88.6
$7 to $7.99	196	144	7.1	5.2	91.2	93.8
$8 to $8.99	96	66	3.5	2.4	94.7	96.2
$9 to $9.99	76	54	2.7	1.9	97.4	98.1
$10 to $11.99	42	32	1.5	1.2	98.9	99.3
$12 to $13.99	20	14	0.7	0.5	99.6	99.8
$14 and over	11	6	0.4	0.2	100.0	100.0
Total	2,774	2,774	100.0	100.0	....	....

[a] Cumulative percentage refers to the percentage of individuals earning no more than highest amount of each earnings group.

[b] Less than one-tenth of 1 per cent.

The preceding summaries have presented the more general facts regarding the earnings, both actual and full time, of women and children in the finishing department. It has been seen that for a given week there was not only a considerable variation in the actual earnings, as would be the normal result of some individuals not working full time, but that full-time earnings or maximum earnings also exhibit a marked degree of variation, even in a presentation as closely condensed as the preceding.

A study of these variations may now be made. The points touched upon will be these: First, the local variations in wage levels due to purely local causes; second, the broader movement of wage levels between larger territories, the States being used as the most convenient units of measurement; third, the differences in the earnings possibilities of different occupations; fourth, the relation of age to wage; and fifth, the relation of race to wage. Variation in individual efficiency will be considered only as it exhibits itself in the mentioned factors. On this account no distinction will be made between time workers and pieceworkers. The purpose is not to explain why wage rates are as they are, but simply to show how they are related to certain external factors. The full weekly earnings of a pieceworker will be accepted as a practical equivalent to a fixed weekly rate.

The inquiry will be limited to women, the children being too few in number to admit of satisfactory analysis. And, moreover, as the women in the finishing department, in which is here included the leer room, are practically the only women employed in the industry, the references and deductions will be made applicable to the industry as a whole.

The analysis here attempted is seriously hampered by several circumstances, the most important of which is that the individuals concerned are relatively few in number when compared with the multiplicity of their occupations and their wide geographical distribution. The result is that homogeneous groups of individuals, homogeneous, that is to say, in the matter of occupation and location, are frequently too small in membership to be acceptable bases of comparison. Conclusions, therefore, can not be very precise, and must in considerable part be based upon observation in the several establishments rather than upon exact tabular information.

EARNINGS, BY LOCALITY.

The first, and possibly the most important, factor to be noted as influencing wage variations among women glassworkers is that of factory location, using the word in a narrow sense, to mean the immediate community in which one or more factories are established. In the discussion of boys' wages in the furnace room the fact was noted that wages often showed marked variations among factories at no great distance from each other. With the women glassworkers this local variation is even more marked than it is among the boys.

Women glassworkers are so far from being a completely mobile labor force that even moderate mobility is rather uncommon. The reason is clear. Such persons, in the great majority of cases, are not independent laborers capable of taking advantage of better opportunities. For the most part they are active members of families, the male adults of which are usually not in the same industry, or if so, rarely in the same occupations or even in the same division of the work, and in consequence, not subject to the same wage influences. Usually the woman is not the most important contributor to the family income, and, as a result, has her residence, which determines her labor market, prescribed by those who would lose more than they would gain by moving the family residence to best meet the opportunities of the woman member in the glass industry.

In any one community, of course, there may be alternative employments open to women, and as their work in the glass industry is mostly unskilled, a change of employment may entail little loss. But the glass industry as a whole is not a city industry. Most factories are located in smaller communities of an intense industrial character, and where, usually, the demand for woman labor is much less than it is for male labor. In such a situation there is no strong force at work to bring women's wages to a single level, even within a comparatively limited territory. The wages offered women in one community, as a result of local conditions, may be much higher than in another, and yet if these communities are not sufficiently close to permit of a person's living in one and working in the other, the uneven level may remain for a long period without any considerable movement of labor from the community of lower wage to the one of higher wage.

Instances of such local variation in wages were frequently met with. Some examples, for the most part extreme, are given in the table following. This table lists for purpose of comparison the average hourly earnings in four selected occupations in 13 selected establishments. As all of these factories are engaged in similar lines of tableware and shade manufacture, and as all are in the Ohio River district of Pennsylvania, Ohio, and West Virginia, and within a radius of 50 miles of the most central one, it may be assumed that their geographical and industrial characters are not very different. Also, as the four occupations selected—selecting, wrapping, washing, and hand grinding—are all of a relatively unskilled character, a close similarity of working conditions is assured. Pieceworkers, furthermore, have all been excluded in order that each wage entry may be taken as a true wage, even although the number of persons concerned is small.

The arrangement of the table is as follows: In each occupational division, as well as in the division showing totals for all four occupations, the establishments are arranged in ascending order of average earnings per hour. In the total division, moreover, the establishments are given consecutive marginal numbers, these numbers being attached to the same factories in each of the occupational divisions.

COMPARATIVE AVERAGE WAGES OF WOMEN IN 4 SELECTED OCCUPATIONS IN 13 SELECTED ESTABLISHMENTS.

State.	Total.			Selecting.			Wrapping.			Washing.			Grinding (hand).		
	Establishment number.	Number of persons.	Average wage per hour.	Establishment number.	Number of persons.	Average wage per hour.	Establishment number.	Number of persons.	Average wage per hour.	Establishment number.	Number of persons.	Average wage per hour.	Establishment number.	Number of persons.	Average wage per hour
			Cents.			*Cents.*			*Cents.*			*Cents.*			*Cents.*
Pa.......	1	26	5.9	1	16	5.7	2	6	5.7	1	10	5.2	3	6	6.2
Ohio....	2	16	6.3	5	6	7.6	4	10	6.4	2	6	5.4	5	3	6.7
Pa.......	3	28	6.7	4	9	7.7	3	9	6.6	3	6	6.0	7	27	7.9
W. Va..	4	24	6.9	9	12	7.7	5	9	7.1	4	5	6.5	10	15	9.7
Pa.......	5	18	7.2	3	7	8.0	10	4	7.2	6	3	7.3	11	2	11.6
Ohio....	6	23	8.1	6	20	8.2	7	24	7.5	12	6	7.5	8	15	12.4
Pa.......	7	79	8.1	8	45	8.4	8	19	7.7	7	6	7.9	9	4	14.3
Ohio....	8	79	9.0	2	4	8.7	11	4	8.7	11	3	9.4	12	4	15.0
Ohio....	9	34	9.3	7	22	9.0	9	6	8.9	9	12	9.6	6	......	......
Ohio....	10	28	9.5	12	2	9.3	13	3	12.2	13	3	10.0	2	......	......
W. Va..	11	12	9.7	11	3	10.0	12	6	12.9	5	......	......	13	......	......
Ohio....	12	18	11.2	10	9	10.0	6	......	......	10	......	......	4	......	......
Ohio....	13	29	11.9	13	23	12.1	1	......	......	8	......	......	1	......	......

It is evident from the items of this table that the variations in the wage rates paid by different factories for the same work are frequent and great. In each occupation listed, except that of washing, the highest wage paid by the establishments at one extreme is at least double that paid by the establishment at the other extreme, and in the excepted occupation of washing the variation is little short of 100 per cent. In grinding the variation is particularly great, the difference between 6.2 cents an hour and 15 cents an hour being, on a 58-hour per week basis, the difference between $3.60 a week and $8.70 a week. Also it is to be noted that in each occupation the variation from factory to factory is more or less regular, indicating that the lowest and highest wage rates are not isolated exceptions.

It is to be observed also that the relative positions of the various establishments, as indicated by the marginal numbers, are such as to lead to the conclusion that in any one establishment the grade of wages is approximately the same. This is subject to some exceptions. Thus the establishment occupying the eighth place in selecting occupies the lowest in wrapping and next to the lowest in washing. On the whole, however, the remarked upon tendency is true; the more important variations are between establishments as a whole and not between occupations within the same establishment. That in any case the variations within individual factories do not balance each other is shown in the first division of the table showing for each establishment the average hourly earnings for the combined occupations. The extreme variation is here seen to be no less than 100 per cent, with a more or less regular intermediate progression.

The factory-to-factory wage variations indicated in this table can not be ascribed to any other causes than that of immobility in the labor force. The establishments selected, to repeat, are all within the radius of a few hours' journey; the four occupations chosen are all of an unskilled character in which differences in the ages of the individuals concerned are of little importance; the women are in all cases time workers, so that even although in certain cases the numbers are few the average wage may be accepted as a sufficient basis for comparison; and, finally, although there are some differences in the lengths of the working week in different establishments, the extreme variation is never sufficient to account for the observed differences in average hourly wages.

It was found impracticable, from the nature of the women's work in the industry, to complete the above tabular presentation for all factories and all occupations. To compare the average wages of women in establishments as units would be meaningless in most cases, owing to the fact that very few establishments are comparable as units in the matter of women's work. There are of course certain resemblances between the work of all finishing departments as between all leer departments; but even in factories of almost identical character as regards product the differences in the work of women are often strongly marked. There are, for instance, probably no two tableware factories in which the occupations of women in the one are exactly duplicated in the other.

To make the desired comparisons, therefore, it is necessary to limit the study to specific occupations in specific factories. This, however, involves such careful selection of material that the resulting usable data are for the most part too tenuous to be acceptable as accurate bases of comparison. This is particularly true of the more skilled of the women's occupations, which are not only of small membership, but involve the additional difficulty of being sometimes piecework, sometimes time work, and at still other times mixed piece and time work. The selected examples given in the preceding table practically exhaust the available data upon the subject.

On the whole, moreover, it does not appear that additional examples are necessary to substantiate the statement that among the women workers of the glass industry the wage variation from factory to factory is a factor of great importance. The cited examples may well be extreme, but the factories and occupations concerned are sufficiently numerous, representing, as they do, 15 per cent of all the women scheduled, to indicate that they are not isolated cases. Among the more skilled occupations the variations were not so great as among unskilled occupations, but the same tendency was everywhere found to exist. Among women glassworkers there is no such a thing as a level of occupational wage even within a very limited territory.

This fact of frequent wage variation from factory to factory is the most significant single fact to be noted in an analysis of women's wages in the glass industry. It is so important and wide reaching that it affects all groupings of individuals upon other bases. It injects into all other comparisons an element of doubt, leaving it open to possible question whether other indicated differences or resemblances are not attributable in the last resort to differences in the wage rates of different establishments. Thus, that the average wage of French women in a given occupation in Pennsylvania is lower than that of Slav women in the same State is of little significance when it is known that the great majority of the former are located in one community, more or less isolated, where the whole level of wages is low. The difference, in other words, is not due to race but to localization of race.

The result of these circumstances is that, in addition to presenting the fact and suggesting the extent of wage variation from factory to factory, an analysis can go no further than the pointing out of certain broad movements which overcome, as it were, the disturbing influences of variation by individual factories. For, notwithstanding such local variations, there are certain important differences between the wages paid women in different States, in different occupations, etc. The differences are, however, chiefly those of different extremes, and thus can be shown better by exact wage groupings than by wage averages.

EARNINGS, BY STATE.

As was noted in the discussion of the wages of furnace-room boys, state lines are seldom exact lines of demarcation in the glass industry. The largest glass center, for instance, is located at the meeting point of the three States of West Virginia, Ohio, and Pennsylvania, a territory which, while comparatively small, employs considerably more than half of the women in the glass industry. A comparison by States, however, is of interest in indicating certain extreme cases. The following table makes such a comparison. It shows, first, the number of woman glassworkers in each State; second, the numerical distribution of such women by the more important wage groupings; third, the percentages of women in each State receiving as much as or more than certain specified amounts, and fourth, the average hourly earnings.

CLASSIFIED FULL-TIME WEEKLY EARNINGS OF WOMAN GLASSWORKERS AND AVERAGE HOURLY EARNINGS, BY STATES.

State.	Total number.	Number receiving weekly earnings of—									
		$3 to $3.99.	$4 to $4.49.	$4.50 to $4.99.	$5 to $5.49.	$5.50 to $5.99.	$6 to $6.49.	$6.50 to $6.99.	$7 to $7.99.	$8 to $9.99.	$10 and over.
Massachusetts and Connecticut	46	......	2	3	5	11	2	2	12	8	1
New York	213	8	12	30	39	20	63	15	17	3	6
West Virginia	402	20	41	55	71	14	90	12	33	49	17
Illinois	185	6	1	39	49	25	32	7	13	11	2
Pennsylvania	1,028	129.	173	154	154	51	163	40	62	61	41
Kansas and Missouri	54	1	4	19	3	3	11	......	11	......	2
Ohio	488	[a]31	58	105	111	29	58	15	43	36	2
New Jersey	107	2	12	24	33	14	17	1	2	2	......
Indiana	238	27	45	67	46	15	30	1	3	2	2
Maryland and Virginia	13	5	6	2	......	......	......	......	......	......	......
Total	2,774	229	354	498	511	182	466	93	196	172	73

State.	Total number.	Per cent receiving as much as or more than—									Average hourly earnings.
		$4.	$4.50.	$5.	$5.50.	$6.	$6.50.	$7.	$8.	$10.	
Massachusetts and Connecticut	46	100.0	95.7	89.1	78.3	54.3	50.0	45.6	19.6	2.2	$0.115
New York	213	96.2	90.6	76.5	58.2	48.8	19.2	12.2	4.2	2.8	.104
West Virginia	402	95.0	84.8	71.1	53.5	50.0	27.6	24.6	16.4	4.2	.104
Illinois	185	96.8	96.2	75.1	48.6	35.1	17.8	14.1	7.0	1.1	.103
Pennsylvania	1,028	87.5	70.6	55.6	40.7	35.7	19.6	16.0	9.9	4.0	.095
Kansas and Missouri	54	98.1	90.7	55.6	50.0	44.4	24.1	24.1	3.7	3.7	.095
Ohio	488	93.6	81.8	60.2	37.5	31.5	19.7	16.6	7.8	.4	.094
New Jersey	107	98.1	86.9	64.5	33.6	20.6	4.7	3.7	1.9	......	.092
Indiana	238	88.7	69.7	41.6	22.3	16.0	3.4	2.9	1.7	.8	.085
Maryland and Virginia	13	61.5	15.4	......	......	......	......	......	......	......	.072
Total	2,774	91.7	79.0	61.0	42.6	36.0	19.3	15.9	8.8	2.6	.097

[a] Including one whose rate is under $3.

EARNINGS, BY OCCUPATION.

In spite of local variations, there are certain occupations of women in the glass industry which are everywhere better paid than others. There are, moreover, certain occupations in which more opportunity of advancement exists than in others. The extent and importance of these factors may now be examined, but because of the fewness of the individuals concerned in comparison with the multitude of their occupations it will be necessary to consider the industry as a unit. This will inject an element of error into the results, wages, as has been seen, varying somewhat from State to State as well as from factory to factory. Certain more general facts and tendencies, however, will be clearly apparent.

No attempt is made to present the wage facts for all occupations. For reasons pointed out in the previous description of the work of women, it has been necessary to entirely disregard many of the minor occupations. The number selected is twenty-two. These are the important occupations, not only in size of membership but in the possession of distinctive features. No occupation has been omitted which possesses any unusual characteristics. It is also to be repeated that the occupations selected are all clear cut and specific. The occupational names have, in all cases, exact meanings, qualifying words being used where necessary to precise distinction. The effort has been to avoid the loose terminology of the trade. Thus, "smoothing" includes those only who are engaged in the smoothing of cut glass; and the term "decorating," which is used in the trade with a multitude of meanings, has been entirely avoided.

Precise homogeneity is, of course, not always possible with such diversified work as that of glass finishing. Demijohn covering includes both those known as "siders-up" and "toppers-off;" "painting and enameling" includes all those doing color decoration of any kind; and "hand grinding" includes all varieties of hand grinding whether of bottles or of tableware and shades. But in each of these cases the occupational name is sufficiently exclusive for the present purpose, the differences existing being differences in skill rather than differences in the character of the work or in the character of the working conditions.

The table on page 413 gives a fairly complete analysis of the wages paid women in these twenty-two occupations. Three sets of facts are offered: First, the simple average earnings per hour of all persons in the occupation; second, the full weekly earnings, real or computed, presented according to the median system; and, third, a percentage distribution of the individuals in each occupation below and above the age of 18.

The average earnings per hour is satisfactory for the purpose of comparing the financial rewards of two or more occupations; but it is wholly insufficient for the showing of wage variations within or the possibilities of a given occupation. It is to meet this weakness, inherent in the average, that the median method has been employed. The method is simple, but for the benefit of those unfamiliar with its use an explanation may be made: The several members of each occupation are first arranged in ascending order of full weekly earnings. Thereupon the amounts received by the first and last individuals of the series; that is to say, by the lowest and highest paid individuals of the occupation, are entered in the table; and, in addition, there are also entered the amounts received by the individuals occurring at five selected points, intermediate between the highest and lowest. These five intermediate points represent the individuals occurring, respectively, one-tenth, one-quarter, one-half, three-quarters, and nine-tenths the way up the arranged series. The points are known, the names being suggestive of their meanings, as the first decile, the lower quartile, the median, the upper quartile, and the ninth decile.

The final two columns of the table indicate the extent to which the better-paid occupations are or are not filled by women of the older ages. The age 18 is chosen as separating fairly well women who are adults and regarded as such from those who are not much more than children and are frequently paid a children's wage simply because of their age and without regard for their actual efficiency.

The several occupations are arranged in ascending order of hourly wage, which order, it will be noted, the median wage does not always follow.

AVERAGE HOURLY EARNINGS, FULL TIME WEEKLY EARNINGS ACCORDING TO MEDIAN SYSTEM, AND PER CENT OF WOMAN GLASSWORKERS UNDER 18 YEARS OF AGE AND 18 AND OVER, BY OCCUPATIONS.

Occupation.	Number of persons.	Average wage per hour.	Weekly wage of person occurring at specified point.							Per cent of persons—	
			Lowest individual.	First decile.	Lower quartile.	Median.	Upper quartile.	Ninth decile.	Highest individual.	Under 18 years.	18 years and over.
Capping jars	61	$0.078	$4.00	$4.50	$4.50	$4.50	$4.50	$5.10	$7.45	39.3	60.7
Mold cleaning	58	.081	3.50	3.70	4.00	4.70	5.00	5.00	8.10	25.9	74.1
Washing and wiping	217	.083	3.00	3.15	4.00	4.50	5.40	6.00	10.61	36.9	63.1
Tying stoppers	29	.084	4.00	4.20	4.20	4.50	5.50	5.50	7.00	31.0	69.0
Taking off leer	49	.084	3.00	3.00	4.00	4.50	4.50	6.00	6.00	57.2	42.8
Wrapping (tableware)	303	.085	3.00	3.60	4.00	4.50	5.50	6.40	13.60	47.2	52.8
Selecting (tableware)	428	.088	3.00	4.00	4.00	5.00	6.00	6.50	12.00	32.0	68.0
Flute cutting, machine	16	.095	3.00	3.00	4.30	6.00	7.00	7.50	8.40	50.0	50.0
Chipping and filing	36	.095	3.50	4.20	4.50	5.00	6.00	7.85	7.95	41.7	58.3
Packing (bottles)	197	.096	3.50	3.60	4.85	5.00	6.00	6.00	8.10	26.4	73.6
Grinding, hand	149	.097	3.20	4.20	4.50	5.25	6.20	7.50	11.65	42.3	57.7
Smoothing (cut glass)	40	.099	4.50	4.50	4.50	4.50	7.00	7.50	9.00	27.5	72.5
Transferring	81	.100	3.00	4.50	4.80	6.00	6.95	8.00	11.60	46.9	53.1
Sand blasting	19	.101	3.00	3.00	4.50	5.55	7.50	7.80	9.00	42.1	57.9
Needle etching	33	.101	3.00	3.00	4.10	6.10	6.90	8.00	12.00	30.3	69.7
Sorting (bottles)	158	.104	3.00	4.50	5.00	5.65	6.00	6.55	15.00	31.0	69.0
Cutting off (by flame)	126	.108	3.00	4.00	4.80	5.95	6.75	9.00	17.55	42.9	57.1
Flute cutting, hand	31	.117	4.50	5.45	6.00	6.10	7.85	8.40	10.50	29.0	71.0
Painting and enameling	225	.120	2.85	4.20	5.25	6.00	8.15	10.25	20.00	19.6	80.4
Glazing	33	.121	4.00	4.50	6.00	7.10	7.45	8.20	10.00	36.3	63.7
Demijohn covering	63	.122	3.30	3.70	5.10	5.90	7.90	9.45	24.00	38.1	61.9
Grinding, chuck machine	48	.143	4.00	6.00	6.00	8.40	9.35	10.10	18.20	16.7	83.3
Miscellaneous	374	......	3.00	......	......	......	......	......	12.50	......	......

This table offers, in simple fashion, an almost complete picture of the wage situation among women in the glass industry. Its indications are evident, but it is desirable to emphasize some of the more important of such indications, and to guard against possible misconstruction. In the first place, examination of the averages and medians shows that the low level of wages already referred to is a feature common to almost all occupations. There are only four occupations—needle etching, hand flute cutting, glazing, and chuck grinding—in which the median wage is more than $6 a week, and all of these are occupations having very small memberships.

Again, the flexibility or inflexibility of wages within an occupation may be observed by a comparison of the lower with the upper quartile. It follows from the definition of the quartiles that at least one-half of the persons in any group must receive not less than the lower quartile or more than the upper quartile. Thus it appears that with three occupations in the table—mold cleaning, taking off the leer, and bottle sorting—there is not more than $1 difference between the two quartiles; and with only seven occupations—machine flute cutting, smoothing, sand blasting, needle etching, painting and enameling, demijohn covering, and chuck grinding—is the maximum difference as much as $2.50. In one exceptional case, that of capping jars, there is no change in the wage entry from the first decile to the upper quartile, a situation that indicates that at least 65 per cent of the persons concerned receive exactly the same wage, $4.50 per week.

Finally, the entries giving the ninth decile and the highest wage offer an excellent guide to the possibilities of the several occupations. The ninth decile is particularly valuable for this purpose. Representing as it does the wage received by the person nine-tenths of the way up the scale, it shows the wage which at least one-tenth of the individuals in the occupation can hope to exceed. Examination of the table upon this point develops that of the twenty-two selected occupations, there were eight in which the ninth decile was as much as $8 a week and four in which it was as much as $9 a week. These four favorable occupations, each of which offers an opportunity of $9 a week to approximately one-tenth of its members, employ 17 per cent of the total number of women scheduled.

In thus emphasizing the more significant points of the table it is also important to caution against one thing that it does not mean. The arrangement of the occupations in order of their increasing financial rewards does not indicate any necessary order of promotion. This is evidenced by the age of the workers in the various occupations, as shown in the last two columns of the table. If there existed such a system of promotion the higher-paid occupations would show a correspondingly higher age of its members. But this is clearly not the case. With the exception of chuck grinding and painting, in which the workers are, as a class, distinctly older than those of the other occupations, there is no indication that age enters at all into the matter of occupation.

This is also the conclusion reached by observation in the several factories. There is considerable casual shifting of individuals from one occupation to another, but very little of this shifting is in the nature of promotion. Such promotion as takes place is almost always within the occupation. One occupation does not lead up to another. If a girl begins as a mold cleaner she will probably remain a mold cleaner, with little increase in salary. If she begins as a wrapper she will have more chance of obtaining an increased wage with increased efficiency, but very little chance of becoming, say, a chuck grinder. If, as a final instance, she begins as a painter or enameler, her early earnings are probably very low but she has an opportunity of increasing them in an important degree.

EARNINGS, BY AGE.

The influence of age as a factor in wage variation is shown in the table following, which classifies all the female glassworkers for whom wage data was obtained according to the age of each, and for those of each age period presents the average full weekly earnings. The data for all individuals, irrespective of State, is first given, and subordinate to this main grouping a separate presentation is made for Pennsylvania singly and for Ohio and West Virginia combined. The number of individuals concerned was too small to permit of further division. Furthermore, above the age of 24 the decrease in numbers is so great that it has been necessary to employ certain age groupings in place of the specific ages previously given. The effect of these necessary combinations is to somewhat weaken the conclusiveness of such deductions as may be made from the table. In spite of such limitations, however, certain tendencies stand forth as clearly marked.

AGE OF FEMALE GLASSWORKERS AND AVERAGE FULL-TIME WEEKLY EARNINGS FOR ALL STATES, FOR PENNSYLVANIA, AND FOR OHIO AND WEST VIRGINIA COMBINED.

Age.	All States.		Pennsylvania.		Ohio and West Virginia.	
	Number of employees.	Average full weekly earnings.	Number of employees.	Average full weekly earnings.	Number of employees.	Average full weekly earnings.
12 years	3	$4.33	1	$4.00	2	$4.50
13 years	12	3.83	5	3.40	6	4.25
14 years	161	3.87	116	3.73	34	4.36
15 years	305	4.26	169	4.03	74	4.83
16 years	523	4.75	233	4.46	151	5.04
17 years	450	4.99	181	4.75	128	5.25
18 years	411	5.32	138	5.21	122	5.65
19 years	260	5.68	99	5.47	80	5.87
20 years	203	5.81	77	5.67	70	6.07
21 years	146	5.93	60	5.93	51	6.32
22 years	98	5.73	44	5.60	31	6.17
23 years	77	6.06	28	6.73	27	5.99
24 years	66	6.36	28	6.47	20	6.37
25 to 29 years	135	6.99	55	8.06	47	6.43
30 to 34 years	62	5.92	15	7.07	23	5.58
35 to 44 years	69	5.92	18	6.47	24	6.42
45 years and over	25	5.99	6	6.95	8	6.32
Others, reported as 21 years and over	249	6.19	46	6.71	108	5.79
Total	3,255	5.31	1,319	5.09	1,006	5.59

Considering, first, the entries for all individuals of all States, an almost regular progression in full weekly earnings is observed to occur from the lowest ages to the age group 25 to 29, where the maximum of $6.99 is reached, and after which there is a sudden dropping to a new level which remains substantially the same for all after ages. In this progression there are two interruptions. The first, occurring at the lowest age of 12, is without significance, as the number of individuals concerned is only three. The second occurs at the age of 22 and is explainable on no evident grounds. That it is, however, no more than a chance exception is evident from the fact that, otherwise, the progression is not only steady and regular, as has been noted, but also is by well-marked stages.

That, furthermore, these observed tendencies are not the result of fortuitous combination is evidenced by the fact that the same tendencies, although somewhat less precisely regular, are seen to exist in the two subordinate groupings for Pennsylvania and for Ohio and West Virginia. In both of these groupings the order of progression is substantially the same as that for "all States," the only exception being an increased fluctuation at and about the age of 22. In Pennsylvania the age of maximum earnings is well marked at the 25 to 29 year group. In West Virginia and Ohio the maximum is at the same point, but is less well marked and there is less decrease with the after ages.

With the limited data and their mixed character such deductions as the above in regard to the relationship of age to wage can not be accepted, of course, as finally conclusive. Nevertheless, the broad tendencies observable are clear and may be accepted as true. For the industry as a whole it may safely be concluded that the full time earnings of female workers increase with age in almost exact progression up to the ages of 25 to 29. Here the maximum is reached, a maximum that is not maintained with the after ages.

It is to be noted, however, that this conclusion as to wage movements is based on the average earnings at each age. It need not follow, therefore, that the indicated movement affects in equal degree the several members of a given age, and in the glass industry, where women's wages are subject to marked variations from factory to factory, such a result would be unexpected. The following table permits of an examination of the individuals concerned upon this point. It does so by exhibiting for each age, and within dollar groupings, the number of individuals receiving specified amounts as full weekly earnings, and a percentage comparison of the relative importance of these amounts.

NUMBER OF FEMALE GLASSWORKERS RECEIVING EACH CLASSIFIED FULL-TIME WEEKLY EARNINGS AND PER CENT RECEIVING AS MUCH AS OR MORE THAN CERTAIN SPECIFIED AMOUNTS.

Age.	Total number of employees.	Number receiving—						Per cent receiving as much as or more than—				
		$3 to $3.99.	$4 to $4.99.	$5 to $5.99.	$6 to $7.99.	$8 to $9.99.	$10 and over.	$4.	$5.	$6.	$8.	$10.
12 years	3	3	......	......	......	......	......	0.0	......	......	......	......
13 years	12	3	7	2	......	......	......	75.0	16.7	......	......	......
14 years	161	[a]80	61	13	7	......	......	50.3	12.4	4.3	......	......
15 years	305	99	137	24	23	4	......	67.5	22.6	8.9	1.3	......
16 years	523	97	220	120	73	9	4	81.5	39.4	16.4	2.5	.8
17 years	450	47	187	121	82	10	3	89.6	48.0	21.1	2.9	.7
18 years	411	[b]31	127	119	114	16	4	92.5	61.6	32.6	4.9	1.0
19 years	260	9	74	71	80	18	8	96.6	68.1	48.0	10.0	3.1
20 years	203	7	42	61	71	18	4	96.6	75.9	45.3	10.8	2.0
21 years	146	11	28	32	61	8	6	92.5	73.3	51.4	9.6	4.1
22 years	98	4	25	27	30	8	4	95.9	70.4	42.9	12.2	4.1
23 years	77	1	19	19	28	7	3	98.7	74.0	49.4	13.0	3.9
24 years	66	2	12	12	27	10	3	97.0	78.8	60.6	19.8	4.5
25 to 29 years	135	4	31	19	42	23	16	97.0	74.1	60.0	28.9	11.9
30 to 34 years	62	3	17	12	23	4	3	95.2	67.7	48.4	11.3	4.8
35 to 44 years	69	2	22	12	23	7	3	97.1	65.2	47.8	14.5	4.3
45 years and over	25	......	9	4	7	3	2	100.0	64.0	48.0	20.0	8.0
Others reported as 21 years and over	249	11	39	64	94	31	10	95.6	79.9	54.2	16.5	4.0
Total	3,255	[b]414	1,057	750	785	176	73	87.3	54.8	31.8	7.6	2.2

[a] Including one receiving under $3.

[b] Including two receiving under $3.

An examination of the percentage columns of this table will show in what degree the higher average earning capacity of a given age is due to an increase in the number of those in the lower wage groups or to an increase in the number of those in the higher wage groups or is due to a combination of the two factors. The most interesting of such comparisons concerns the age group 25 to 29, which was previously seen to be the one of maximum average earning capacity. Here it is clearly evident that this higher average earning capacity is due, not to a decrease in the proportion of individuals receiving the lower wages, but to a very great increase in the proportion in the higher wage groups. Thus, of those in the 25 to 29 year group 28.9 per cent are receiving as much as or more than $8 as their full weekly earnings as against the next highest percentage of 19.8 at the age of 24, and 11.9 per cent are receiving as much as or more than $10 a week as against the next highest percentage of 8 at the age group 45 and over.

EARNINGS, BY RACE.

The influence of race as a possible factor in wage variation may take any one of three forms. The members of one race may obtain a higher wage or have larger full-time earnings than those of another race (1) because they are offered higher wage rates, whether time or piece, or (2) because they are favored in that they are placed in the better paying occupations, or (3) because, if pieceworkers, they are more efficient and thus have a greater output.

In regard to the first of these points it may be said that with women glassworkers racial discrimination in the matter of rates paid was nowhere found to exist. In none of the factories scheduled was there any reason to believe that the rate paid for a given work was varied solely because of the race of the worker.

In regard to the second point, it may be said with equal certainty that not only are certain races frequently preferred for certain positions, a preference which might be based ultimately upon differences in efficiency, but that there is at times an actual discrimination in this regard solely because of the race of the workers. This discrimination, however, is rather between two racial groups than between individual races. The native Americans together with those of the older immigrant races, the English, the German, the Irish, etc., are put in one group, while the later immigrant races, the Slav, the Italian, the Lithuanian, etc., are placed in the other. The discrimination referred to is against this latter group. Many employers prefer the women of the later immigrant races because of their working qualities, but most employers, foremen, etc., dislike such persons individually, regarding them as peculiarly "foreigners." The terms "Polacks," "Hunkies," etc., as applied to such individuals have usually a distinctly invidious significance. This personal dislike, as has been noted, probably never takes the form of rate discrimination, but it is of influence in the assignment of an individual to a specific occupation, and more particularly in the matter of possible promotion. Other things being equal, an American, a German, or an Irish woman almost always will be assigned the more lucrative work and will be given the preference in promotion.

The third point noted, that of relative racial efficiency as evidenced by greater output, concerns only the pieceworkers, the time worker's earnings not being immediately governed by output. Upon this point no conclusive information was obtainable, the number of pieceworkers subject to study being entirely too limited to permit of satisfactory deductions. From observation in the factories and from the opinions of employers, foremen, etc., it appeared that race is a factor of little if any importance in the matter. The work done on a piece-rate basis is in great part at least not of a kind to favor any peculiar racial characteristics.

In summary, therefore, it may be concluded that there are only two ways of importance in which race may enter as a factor in wage variation. In the first place, the races differ to some extent in the matter of intelligence and physical strength, and this affects their being placed in certain occupations. Thus, the Slav women, as a rule, are physically stronger but mentally less adaptable than certain other races. As a result the Slav women tend to be placed in the occupations requiring the greater manual strength, and these are generally the lower paid occupations. Positions involving supervisorship or leadership are usually given to persons having a knowledge of the English language. The second way in which race may influence wage variation rests, as has been pointed out, upon actual discrimination against persons of the more recent immigrant races, a discrimination that takes the form not of rate reduction but of favoritism in assigning occupations and in making promotions.

These facts are apparent from observation, but it is impossible to present them in tabular form. To make a just racial comparison it would be necessary to limit the comparison to persons of approximately the same age, and working in localities of the same general wage levels. But to effect such isolation, in view of the number of races here concerned, would render the resulting units too small for the purpose of fair comparison.

TIME AND PIECE WAGE RATES.

The time rate, usually in terms of the day or week, is the most prevalent method of wage payment among the women and children in the finishing department, but the piece rate is not uncommon. Of the 2,774 women for whom wage data were obtained 2,241, 80.8 per cent, were time-rate workers as against 533, 19.2 per cent, who were working on a piece-rate basis. For children the corresponding percentages were 91.1 for time workers and 8.9 for pieceworkers. As, however, the number of children employed in the finishing department is in any case small, and as the character of their wage payment presents no peculiarities not possessed by that of the women, they need not be especially regarded in this consideration of time and piece rates.

Among women in the finishing department the piece rate is used in place of the more customary time rate with no uniformity as between occupations or factories. A few occupations, chiefly those of the heavier, less skilled character, are everywhere paid exclusively on a time basis. On the other hand, there is no factory which employs the piece system exclusively and no occupation which is everywhere paid on a piece basis. It was frequently found, indeed, that in the same factory the workers in the same occupation were some paid a time wage and some paid a piece wage.

The nearest approach to a general rule of practice is this: Whenever the work is of a more or less delicate character, and capable of great variations in quality and speed, the piece system is generally preferred and is extending itself. Commonly at such work beginners are paid by the time, but, if adaptability is shown, the piece rate is shortly substituted. It is to this latter fact primarily that the higher earnings of pieceworkers as a class is to be attributed. Their earnings are higher than those of time workers in the same occupation, not so much because of more favorable terms of employment, but because it is the more capable workers who are placed on piece rates.

The situation upon these several points can best be exhibited in tabular form. The following table shows by occupations the number and proportion of time and piece workers and the average earnings per hour of these two classes of workers. The occupations are arranged in ascending order of the average hourly wage of all members, as was done in the table on page 413, and all occupations are listed, although in seven there were no pieceworkers scheduled. It is to be noted that a number of so-called pieceworkers have not been so classed because of the fact that in reality their possible earnings are limited in quite the same way as are those of time workers. Thus, to cite the principal example of this, bottle packing is usually paid for by the piece. But the piece represents an almost precise amount of ware, as the number of pieces to be handled per day is fixed by the output of the shops, a woman packing usually for two shops and a man for three.

FEMALES 16 YEARS OF AGE AND OVER CLASSIFIED BY OCCUPATION AND BY METHOD OF WAGE PAYMENT.

Occupation.	Number of employees.			Per cent of pieceworkers.	Average earnings per hour.			Per cent of excess of piece earnings over time earnings.
	All.	Time workers.	Pieceworkers.		All.	Time workers.	Pieceworkers.	
Capping jars	61	61			$0.078	$0.078		
Mold cleaning	58	58			.081	.081		
Washing and wiping	217	190	27	12.4	.083	.081	$0.095	17.3
Tying stoppers	29	29			.084	.084		
Taking off leer	49	49			.084	.084		
Wrapping (tableware)	303	269	34	11.2	.085	.083	.108	30.1
Selecting (tableware)	428	416	12	2.8	.088	.087	.125	43.7
Flute-cutting, machine	16	12	4	25.0	.095	.092	.112	21.7
Chipping and filing	36	31	5	13.9	.095	.095	.098	3.2
Packing (bottles)	197	197			.096	.096		
Grinding, hand	149	113	36	24.2	.097	.091	.117	28.6
Smoothing (cut glass)	40	40			.099	.099		
Transferring	81	57	24	29.6	.100	.093	.128	37.6
Sand blasting	19	12	7	37.0	.101	.086	.125	45.3
Needle etching	33	33			.101	.101		
Sorting (bottles)	158	97	61	38.6	.104	.104	.104	
Cutting off (by flame)	126	72	54	42.8	.108	.094	.126	34.0
Flute cutting, hand	31	9	22	71.0	.117	.107	.121	13.1
Painting and enameling	225	139	86	38.2	.120	.085	.181	113.0
Glazing	33	7	26	78.8	.121	.101	.127	25.7
Demijohn covering	63	9	54	85.7	.122	.142	.119	[a] 16.2
Grinding, chuck machine	48	19	29	60.4	.143	.117	.159	35.9
Miscellaneous	374	322	52	13.9	.097	.092	.123	33.7
All occupations	2,774	2,241	533	19.2				

[a] Per cent less than time earnings.

In the first place it may be observed from this table that the proportion of pieceworkers to time workers roughly increases with the skill of the occupation. The seven occupations in which there are no pieceworkers are all of a simple and, for the most part, rather coarse character, and in others of the same character, such as washing and wiping, wrapping, selecting, and clipping and filing the percentage of pieceworkers is very small. The only important exception to this is bottle sorting, and here the high percentage of pieceworkers is accounted for by their localization in two large establishments, whose methods of wage payments are in several respects exceptional in the trade. On the other hand, all those occupations requiring a considerable degree of intelligence and finger deftness exhibit a relatively high proportion of pieceworkers.

The second point in the table to be emphasized concerns the relation of piece earnings to time earnings. Sorting bottles, as before, occupies an anomalous position, but with this exception and the exception of demijohn covering the pieceworkers in every case exhibit a higher rate of earnings, the difference in some cases being marked. Demijohn covering shows lower hourly earnings for pieceworkers in spite of the fact that it shows the greatest proportion of pieceworkers. This is due to the inclusion in the occupation of certain time workers who were receiving exceptional high wages as instructors or leaders. In any case the occupation is exceptional, being limited to two factories. At the opposite extreme is the occupation of painting and enameling, which is of wide distribution, and, although having a relatively small percentage of pieceworkers, exhibits the earnings of such persons as being considerably more than double that of time workers.

The details regarding the piece rates paid in various occupations and their resultant effects have been given in connection with the occupational descriptions (pp. 297–333). It is not necessary to repeat them here.

PREMIUMS AND FINES.

The premium, which in some form was noted to be of almost general employment among the furnace-room boys, was found to be almost entirely absent among the women and children of the finishing department. In total only three instances were scheduled. One (Pennsylvania) was that of a bonus paid to chuck grinders and cutters-off for excess output above certain fixed standards. The second was in the form of weekly prizes for minimum breakage. These prizes consisted of a first prize of $1 a week and a second of 50 cents, and were offered to the female employees of any occupation in which such persons were employed. The purpose of these prizes was solely to increase care in handling, not to increase speed. The third instance of the use of a premium was in a cut-glass establishment, its object being to increase both regularity and quality of work. This premium was not a formal fixed amount and was rather of the nature of an occasional gift for superior workmanship or for regular attendance.

The imposition of a fine or penalty for irregular or bad work is somewhat more common than is the offer of a premium for regular and good work. A not infrequent practice was for tardiness in the case of time workers to be punished by deducting a pro rata amount from the daily or weekly wage. Most factories, however, exhibited a fairly liberal policy in this respect and did not deduct for occasional lateness in coming to work. In any case such deduction was not, strictly speaking, a penalty. In three factories, however, an actual penalty was imposed for frequent tardiness or absence without good cause. In one case the penalty was a deduction of pay. Thus, if a woman or girl was absent more than two days in a month without good excuse her pay was reduced 5 cents for the first day, 10 cents for the second, etc., until the minimum rate of 75 cents a day was reached. In the two other instances an extra deduction of from 5 to 25 cents a week was made. On the whole, however, neither tardiness nor unexplained absences on the part of women workers was frequently complained of by the employer, and, on the other hand, no complaint was heard from the women themselves that the fining system was used as a means of exploitation.

A similar statement may be made in regard to fines for breakage and spoiled ware. Usually no deduction is made for occasional or accidental breakage, but a few factories are very strict in this respect and charge a worker for all broken or spoiled ware. In addition to this four factories were reported as having imposed fines greater than the mere value of the ware for gross carelessness or negligence. In none of these cases had such a fine been imposed more than four times during the year. It did not appear that these fines were in any case excessive. A more serious penalty, although one of less frequent occurrence, is that imposed in a few factories for the packing of faulty ware. In one case a packer guilty of carelessness in this matter was fined as much as a day's wages.

In summary it may be said that neither premiums nor fines are considered by most employers as being satisfactory means of encouraging speed, care, or regularity among the women of the finishing department. A large number of establishments reported that they had tried both these methods in the past but, had discarded them as being without successful effect. One employer concluded his opinion with the statement that "a damned good cussin' does a Slav girl more good than fining her." The comparative unimportance of fines and premiums among the women workers was indicated by the fact that the wage data gathered were influenced in almost no degree by the presence of such items.

CONTRACT WORK.

By contract work is meant the letting to a contractor of certain portions of the work of a factory, the contractor employing persons to do the work, being responsible for it, and being paid by the factory management for the output of his group of workers. In the glass industry the contract system has never gained a serious footing, and not enough was met with in the investigation to call for more than a brief mention. A number of establishments were found which had adopted the system, but in no case did it affect more than a very few occupations and a very few individuals. In only one instance was it found that the contracted work was done outside the premises of the factory, the factory in this case being engaged in the manufacture of a rather unusual style of lamp, which required that certain "fringe work" and "bead decoration" be done upon the shades. This work was taken home by the women employees of the contractor. This, however, was a solitary instance, and, as a whole, the character of the work in the industry does not lend itself to home work.

With the exception of the making of packing boxes, no contracts were found in any divisions of the factory except the finishing rooms proper; and, almost always, the individuals working for the contractor were women or girls. In one case the contractor was a woman. Grinding and the various forms of decoration were the processes most frequently let on contract, the whole or portion of these processes being so let in some fifteen of the establishments scheduled. One large establishment, which itself did all the more ordinary forms of decoration, was contracting for its enameling decoration and had placed one of its buildings at the disposal of the contractor. In one factory the decoration contractor employed as many as thirty women, but usually the number of individuals so employed in any one factory was very much smaller.

A clearer idea of the character of the contract work found in the industry may be obtained from the following excerpts from the field reports of the agents:

Factory No. 1.

Only one department in this establishment that engaged in the cutting off and grinding of tumblers, etc., has any work on the piecework plan. This department is managed by a contractor, who is paid varying rates for different wares, and who pays the girls working for him slightly smaller rates. The company supplies all the machinery and motive power. The rates paid the girls vary with the difficulty of the task: For cutting off, from one-half to 1½ cents per dozen; for grinding, from 1 cent to 3 cents per dozen. The contractor is paid by the firm from one-fourth to one-half cent per dozen more than the above rates.

Factory No. 2.

The sand blasters, decorators, gold banders, and miscellaneous labor in the decorating department are paid by the contracting foreman of the department, who hires about a dozen persons, making his own scale of wages and paying his help directly. He contracts with the company to do the work at a certain price per dozen. The wages of his help could not be ascertained from him and they do not appear on the company's books.

Factory No. 3.

In the basement there are two rooms for decorating and in a separate room a furnace for baking. All work is done under contract system. A man is in charge, who hires his several women assistants. A great deal of gold-stain work is done on opal lamps, the colors, as red and green, being painted on and dried. In gold decorating, the surface of the tumbler is covered with a mudding solution, consisting mainly of copper sulphate. After this has gone through the furnace and has been washed off, the surface of the glass is so changed as to permit the gold to stick. The girls employed here do not wash off. They do simply the brush work, while the contractor does all the finer and more difficult work.

Factory No. 4.

Cutting off and grinding are here done under contract. The contractor is practically a foreman on a commission basis of from one-fourth of a cent to one-half a cent per dozen on the ware handled, the firm standing the loss of breakage.

Factory No. 5.

The etching departments are operated under contract. The plate-etching department was not in operation at the time of agent's visit. In the needle-etching work the contractor in charge is an elderly man, who has been with this firm for over twenty years. Two of his sons and one daughter work under him, so that this department is practically a matter of family industry. The contractor is paid on a piece-rate basis, but pays his help by the day. In the two-week period covered by the pay roll the contractor received $166.30, of which $91 was paid out by him in wages, leaving him $75.30 for his time. The contractor stated to agent that his share was generally between $150 and $175 per month.

In many cases the earnings of the women and girls working for contractors could not be obtained with accuracy. Such earnings did not appear on the books of the establishment and often the contractor was unwilling to produce his own accounts. On the whole, however, and although exact figures are lacking, it would appear that in most places the women and girls working for a contractor are as well paid as if they had been directly employed, but that occasionally differences occurred and such differences are always against those employed by the contractor.

The differences in working conditions were more clearly marked, and in no case were the conditions surrounding the employees of a contractor quite as good as those of the direct employees of the establishment. This was due simply to the shifting of responsibility customary in such cases. The contractor tended to blame the factory management for bad conditions and the management in turn shifted the obligation upon the contractor.

The total number of women and girls in the several glass factories working under the contracting system is small, certainly not more than 3 per cent of all such persons employed in the industry.

CHAPTER XVI.

ILLEGAL EMPLOYMENT OF WOMEN AND GIRLS.

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Of the seventeen States covered by the glass investigation, there were thirteen in which women (that is, females 16 years of age and over) were found employed in all or some of the establishments investigated. These States were Massachusetts, Connecticut, New York, New Jersey, Pennsylvania, Maryland, Virginia, West Virginia, Ohio, Illinois, Indiana, Missouri, and Kansas. Of these thirteen States, there were six—New Jersey, Maryland, West Virginia, Illinois, Missouri, and Kansas—in which no laws restricting the employment of women were in force at the time of the investigation. In each of the remaining seven States the employment of women had been brought, in some degree at least, under legal restriction, although in two instances, Ohio and Indiana, the law was not applicable to women of 18 years of age or over. Legal restrictions on women's employment was in every case limited to the one subject of working hours. In all of these States a maximum legal day for women had been established; in all States but one a maximum legal week had been similarly established; and in four of the seven States concerned night work between specified hours had been prohibited for women.

A brief statement of these several laws may be given, as follows:

Massachusetts.—Legal day, 10 hours; legal week, 58 hours. Exceptions: Legal day may be increased for the sole purpose of making a shorter day's work for one day of the week. No night work between 10 p. m. and 6 a. m. (Revised laws of 1902, ch. 106, sec. 24 [as amended by ch. 435, acts of 1902] and sec. 27 [as amended by ch. 267, acts of 1907].)

Connecticut.—Legal day, 10 hours; legal week, 58 hours. Exceptions: First, legal day may be extended for the purpose of making a shorter week day for one day of the week; and, second, that the hours per week may be extended to 60 hours from September to May, inclusive, provided the week's work be limited to 55 hours during June, July, and August. No limitations on night work. (Acts of 1907, ch. 251, sec. 1.)

New York.—Legal day, 10 hours; legal week, 60 hours. Exceptions: Legal day may be extended, regularly, in order to make a shorter day's work on one day of the week; or, irregularly, up to 12 hours on not to exceed three days in the week. Night work forbidden between 9 p. m. and 6 a. m. (Revised Statutes, 3d edition, 1901, sec. 77 [as amended by ch. 507, acts of 1907] and sec. 78 [as amended].)

Indiana.—Legal day, 10 hours; 60 hours a week. Exceptions: Legal day may be increased for the purpose of making a shorter work day on the last day of the week. These provisions apply to females under 18 years only, not to females of 18 years or over. Night work forbidden for all females between 10 o'clock in the evening and 6 o'clock in the morning. (Annotated Statutes of 1894. Revision of 1901, sec. 7087a and sec. 7087c.)

Pennsylvania.—Legal day, 12 hours; legal week, 60 hours. No restriction on night work. (Acts of 1905. Act No. 226, sec. 3.)

Virginia.—Legal day, 10 hours; legal week, not provided for. No restriction on night work. (Virginia Code, 1904, sec. 3675b.)

Ohio.—Legal day, 10 hours; legal week, 55 hours. Night work forbidden between 7 p. m. and 6 a. m. These restrictions apply to females under 18 years of age only; those of 18 or over are not restricted. (Bates's Annotated Statutes, 3d edition, Part IV, sec. 6986–8 [as amended by act, p. 598, acts of 1902, and act, p. 321, acts of 1904].)

An investigation was made in each of these seven States regarding the observance of the state laws as cited by the glass factories in which women were employed. The results of this investigation were as follows:

1. *Night work.*—Of the four States in which the employment of women at night was prohibited—Massachusetts, New York, Ohio, and Indiana—violations were met with in only the one State of Ohio, and in only one establishment in that State. In this instance four women under 18 out of a total of twenty investigated were reported to have violated the law by working later than 7 p. m. once or more during the preceding year.

2. *Employment in excess of legal day or legal week.*—In each of the seven States concerned a maximum legal day for women's work had been established, and in each, except Virginia, a legal week had similarly been established. In four of these States—Connecticut, Massachusetts, New York, and Virginia—no violations of these laws were reported. In each of the other three States violations of greater or less flagrancy were found. The exact extent of such violations is exhibited in the following table. This table shows for each of the seven States concerned the length of the legal day and legal week permitted for women's work, the number of establishments and women investigated, and the number and per cent of violations reported.

NUMBER AND PER CENT OF ESTABLISHMENTS INVESTIGATED EMPLOYING WOMEN MORE THAN LEGAL DAY OR LEGAL WEEK AND NUMBER AND PER CENT OF WOMEN SO EMPLOYED, BY STATES.

State.	Legal hours per day.	Legal hours per week.	Establishments.					Women.				
			Total investigated.	Employing women more than—				Total investigated.	Employed more than—			
				Legal day.		Legal week.			Legal day.		Legal week.	
				Number.	Per cent.	Number.	Per cent.		Number.	Per cent.	Number.	Per cent.
Massachusetts	[a] 10	[b] 58	2	......	......	......	......	....	......	......	......	......
Connecticut	[a] 10	58	1	......	......	......	......	....	......	......	......	......
New York	[a] 10	60	3	......	......	......	......	....	......	......	......	......
Pennsylvania	12	60	20	6	30.0	9	45.0	453	43	9.5	83	18.3
Ohio [c]	10	55	14	3	21.4	7	50.0	128	8	6.3	42	32.8
Indiana [c]	[a] 10	60	5	4	80.0	3	60.0	37	6	16.2	5	13.5
Virginia	10	([d])	1	......	......	......	......	....	......	......	......	......

[a] Exception: Legal day may be lengthened for the sole purpose of making a shorter day's work on last day of week.

[b] Exception: Legal week may be extended to 58 hours from September to May, inclusive, provided it is shortened to 55 hours during June, July, and August.

[c] Law applies only to females under 18.

[d] No law.

CHAPTER XVII.

RELATION OF THE WORK TO HEALTH.

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NATURE OF THE EVIDENCE.

In the preceding descriptions of the occupations of women in the glass industry brief comment was made in every case upon the pleasant and unpleasant features, the presumably healthy and unhealthy conditions of the work. It is desirable, however, to consider, in a somewhat broader manner, the effect of women's work in the glass industry upon their physical health, to note more in detail how extensive the harmful conditions may be, and to point out how far such conditions may be a necessary part of the work. In so doing some recapitulation will be necessary of what has already been said.

An attempt to ascertain with any completeness the effect of the work done by women upon their physical health in the glass industry, as well as in almost all other industries, is necessarily one of great difficulty. Whatever evil physical results may ensue from women's employment at glass factory occupations, they are, with very few exceptions, of a kind which would not be visibly evident except after a considerable period of time. There are few instances where the work is of such a character or is done under such conditions as to cause immediately developing diseases or disorders. Such harm as may be done would be in almost all cases the result of a long accumulation of items, which, over a short period, might have no harmful result whatever.

This being so, the only method of finally determining the effect of a particular work or a particular condition would be to conduct a series of studies and tests upon specific individuals over a considerable period of time. This was, of course, impracticable in such an investigation as the present. Nor were there any available records of a reliable character. The testimony of the women workers themselves was on the whole unsatisfactory. Usually they were able to state with considerable accuracy whether or not their health had grown worse since beginning work in the glass industry, although even here the answers were often vague; but, if health had declined, to relate such decline to any particular cause could only be done when the cause was particularly evident.

Moreover, the less favorable the occupation or the conditions in which a woman works the less liable is she to remain at the work. If not transferred to other less harmful employment she usually leaves the industry before the effects of the harmful employment have seriously developed. This is evidenced by the fact that nearly all those women who reported themselves as having been in the industry a number of years were employed at work which was, if not agreeable, at least not noticeably harmful to the health. As a result of this fact inquiry among the women at present employed in the industry could not be complete evidence upon the point at issue. To render it complete it would have been necessary to have enlarged the inquiry to include those who had left the industry. This extension could not be made in the present investigation.

Under the circumstances described, therefore, the following comments upon the healthfulness or unhealthfulness of women's employments in the glass industry must rest in great degree upon indirect evidence, upon the effects which certain work and working conditions may be presumed, under normal conditions, to have upon the health of persons so employed. The information obtained of this character will be first presented, the testimony of the women themselves being reserved until the end of the section.

In the first place, it may be stated as a general principle that, with two exceptions, there is no occupation of women in the glass industry which need be harmful to health, at least in any unusual degree, and no work that need be done under harmful conditions. The simple evidence for this statement is the fact that there is no work done by women which, in at least one factory, has not been robbed of all harmful features by carefulness on the part of the management. The exceptions noted are the occupations known as taking off the leer and sand blasting. This work as performed in every factory visited was unquestionably bad for the health of women. It is not impossible that even in taking off the leer the harmful features might be eliminated, but they never have been eliminated in the past, and there seems little likelihood of their being so in the future.

On the other hand, it may be stated, with the same broadness, that there is no occupation or work of women which in some factory, through carelessness or indifference on the part of the management, is not done in a harmful manner or under harmful conditions. In other words, the existence of unhealthy work and unhealthy working conditions for women in the glass industry is rarely industrial or occupational. It is individual with the offending factory or factories.

There are, however, certain conditions tending toward unhealthful effects which are more or less general in the industry, and certain occupations, the simple methods of doing which, and consequently those in greatest vogue, are distinctly harmful. These two classes of facts may be considered separately.

HARMFUL FEATURES OF WOMEN'S WORK OCCURRING IN NUMEROUS OCCUPATIONS.

CONSTANT STANDING.

In the glass industry the great majority of female workers stand all the time at their work, even when seats are provided. There are a few occupations, such as smoothing cut glass, in which the workers must sit, but the greater number of occupations permit of standing, and, whether through desire or compulsion, most women and girls stand constantly. Schedule questions covering this point were answered by 1,272 female workers of various ages, a number but slightly less than a third of the total normally employed in all the scheduled factories. Of these 1,272 workers, 872 (68.5 per cent) stood constantly while at work, 305 (24 per cent) sat constantly, and 95 (7.5 per cent) sat part but not all of the time while at work. The following table classifies these 1,272 persons by occupations and shows for each occupation the number of females, respectively, standing all the time, sitting all the time, and sitting part of the time, and also shows the number of factories represented by each group of females.

NUMBER OF FEMALES IN ESTABLISHMENTS INVESTIGATED STANDING CONSTANTLY, SITTING CONSTANTLY, AND SITTING PART OF THE TIME, BY OCCUPATIONS.

Occupation.	Total females concerned.	Number of females—			Establishments.	
		Standing constantly.	Sitting constantly.	Sitting part of time.	Total concerned.	Number in which all or some of females in specified occupation sat at least part of time.
Taking off leer	24	17	....	7	8	2
Mold cleaning	18	3	14	1	10	9
Tying stoppers	17	1	8	8	5	5
Chipping and filing	24	7	16	1	8	8
Capping jars	18	11	4	3	5	2
Cutting off flame	67	55	8	4	12	4
Grinding, hand	114	110	3	1	16	3
Grinding, chuck	4	4	....	....	1	....
Glazing (disk only)	22	13	9	....	9	5
Flute cutting, hand	13	....	13	....	3	3
Flute cutting, machine	2	1	1	....	1	1
Needle etching	20	17	....	3	6	1
Sand blasting	12	10	1	1	5	2
Transferring	47	10	34	3	10	8
Decorating (color)	84	42	42	....	13	9
Smoothing	12	....	12	....	2	2
Washing and wiping bottles	155	147	2	6	29	6
Sort and select	220	180	23	17	36	16
Packing	62	53	1	8	18	3
Wrapping	111	96	6	9	23	7
Miscellaneous	160	93	44	23	34	21
Cap-machine tender	23	2	21	....	3	2
Demijohn making	38	....	38	....	2	2
Vial making	5	....	5	....	1	1
Total	1,272	872	305	95	260	122
Per cent	....	68.5	24.0	7.5	....	46.9

An examination of this table will show that while in nearly all occupations those who constantly stand are dominant and that the factories in which no sitting is done are also dominant, there is no occupation except chuck grinding in which constant standing is done by all the reporting individuals. Chuck grinding, as almost universally performed, practically requires constant standing, but in one of the scheduled factories, not represented in the above list, provision had been made that the chuck grinders might sit part of the time. In similar manner taking off the leer can not possibly be done sitting, but in two factories visited the work and working force were so organized that those taking off the leer might sit approximately ten minutes out of each hour.

The reason urged for the so universal practice of constant standing is the economic one that in almost every one of the listed occupations a person works more rapidly standing than sitting. Foremen, therefore, usually prohibit the women the use of seats any part of the time, and pieceworkers, for the sake of greater earnings, tend to shun seats even when provided. It is unquestionably true that in occupations permitting of standing, constant standing increases output for a short period of time. Whether it does so over a long period of time is disputed. Nearly all those employers who provide seats for timeworkers state that occasional sitting increases efficiency in the long run. And it was almost always noted that pieceworkers, when seats were provided, used such seats from time to time, when they were unwell or unduly tired, thus perhaps sacrificing increased immediate earnings for the sake of the morrow's earnings. So, too, timeworkers would probably not prefer to sit all of the time even if this were permitted, and such permission is perhaps not economically advisable; but the provision of seats and permission to use them occasionally would obviate an unpleasant and unhealthy feature of the industry. Washing glass articles, for instance, can undoubtedly be best done standing, and most women prefer to do it standing, but there is no reason why the worker should not be permitted to sit a fraction of the time each day or all the time on days when standing would prove injurious to her health.

LIFTING OF HEAVY WEIGHTS.

The lifting and carrying by women of weights too heavy for anyone except a reasonably strong man is not a feature of many occupations, but there are very few factories in which some of the female employees do not perform such work occasionally at least. It may be a taker-off-the-leer who lifts and stacks the crates she fills, or a sorter who carries the filled crates to the packer, or a demijohn carrier who brings in her load of demijohns from the yard. Other instances have been mentioned in the preceding descriptions of occupations. In these descriptions it was also pointed out that the unhealthfulness and danger of such work for women was recognized by most employers; that men were commonly assigned to do the work, and the fact that the women did so was largely the fault of the men assigned the task. In such cases the evil could easily be obviated by a more careful supervision on the part of the managers or foremen. In a few factories, however, such heavy work was made a part of the women's occupation, a sorter, for instance, being expected as part of her duty to lift and carry or stack the heavy crates when full. This is inexcusable, as there is probably no factory in which a man laborer could not be assigned such work without additional expense to the management.

WET FLOORS.

Wet floors in those parts of the factory where the women employees must walk was a common and substantiated complaint. This condition affects chiefly those persons doing washing and wiping, this being the occupation in which water is most freely used, but it is by no means limited to this one work. The same condition, for instance, is frequently found among edge grinders on the large horizontal stones. In this work a considerable quantity of water must be used to keep the large stone moist, and often, whether through the worker's carelessness or through the absence of proper feed and drain pipes, the floors become thoroughly wet. An exceptionally bad example of wet floors was found in the silvering and gilding department of a West Virginia factory.

In this factory the silvering and gilding department was a separate two-story frame building about 25 by 35 feet, with inadequate ventilation and inadequate heat in cold weather. The floor was wet practically all the time, so that the feet of girls, women, and men working here became thoroughly wet early in the morning and remained so all day. The clothing of the girls and women working here became soaking wet except in the few cases where rubber aprons were provided. The air was saturated with acid fumes, steam, and dust. The place was overcrowded and inconvenient, with insufficient light.

OCCUPATIONS HARMFUL AS USUALLY PERFORMED.

The occupations which may be classed under this heading are sand blasting, acid dipping, "dusting," and "spraying." In each the simpler method of doing the work involved harmful effects on health, and to avoid the harm such a degree of care and thoughtfulness on the part of the management was necessary that very few employers had attempted to do so. In considerable measure the failure to change the bad method for a good method had been due to carelessness or ignorance of the better method. Rarely was it due to the unwillingness to undergo an extra expense, for in most cases the improved method cost little if any more.

SAND BLASTING.

The sand blasting of an article, as has been described, is the roughening of the surface of the glass by forcing sand particles against it under pressure. There are two types of sand-blast apparatus, known, respectively, as the "open" and the "closed." The article to be blasted is placed under a hood, which is completely closed while the operation is in process. Little or no sand escapes into the room.

With the "open" method there is no protection to the operator. The article is inclosed in a metallic stencil and held by hand immediately above the outlet pipe of the blast. The sand rushing up strikes the surface of the glass through the openings in the stencil and thus abrades the design upon the glass. The force of the blast is such, however, that the rebounding sand and glass particles escape and are thrown out into the room upon the person of the operator and often for a distance of many feet. The pressure of the blast is usually 40 to 50 pounds, but is sometimes as much as 90 pounds. Considerable differences exist among the factories using the sand-blast apparatus in regard to the degree and effectiveness of the protective features for lessening the amount of escaping sand. With the "open" apparatus, however, these protective features are rarely, if ever, sufficient.

The situation in this respect as it existed in several of the visited factories using the "open" sand blast is shown in the following excerpts from the reports of the agents:

Establishment in West Virginia.—Here the sand blasting is done by one girl, in a small room just off the needle-etching room. This room does not appear to have sufficient ventilation. The pressure used is about 50 pounds. The sand is forced through tubes by steam. In showing the agent this room, the foreman remarked that while the sand flew about considerably, it was not as bad as when higher pressure was used. He pointed out that the sand-blasting tub rested on a stand beneath which came up the pipes and tubes through which the air, steam, and sand were forced. He remarked that occasionally the tubing—some of the connections were of rubber—burst and the steam was liable to scald the person working at the machine, and he, therefore, preferred the lower pressure which, moreover, did the work as well as the higher pressure. There was no excuse whatever for the neglected condition of this piece of apparatus, as a few boards could very easily have been placed between the person working at the machine and the pipes beneath the stand.

Establishment in Ohio.—The sand-blast etching is here done by women. The sand blast is covered by a tight metal drum, in the top of which there is a hole into which fits a shield that holds the metal stencil. The tumbler or piece of ware to be etched rests upon the stencil, being placed in position by the woman operator, who then turns on the sand blast, which is directed by compressed air. Some patterns require two applications, some three, others only one. Two of the operators complained of the serious irritation of the escaping sand and fine glass powder when getting in eyes and nostrils and throat. One girl who used to work at sand blasting told the agent she left that occupation because she could not stand the throat and eye irritation caused by it.

Establishment in Ohio.—On the first floor there is one large room in which are three sand-blasting machines, operated under 90 pounds pressure. This high pressure causes the sand to be scattered all over the room. There is no arrangement whatever to either minimize the dust or to remove it by means of an exhaust pipe. The sand blasters wore no sponges or respirators. At the time of the inspection two windows were open close to the machines, thus permitting the wind to scatter the dust still farther about the room. In this same room others than the sand blasters were also working—several men and five or six women. At other times, when there is a good deal of pattern etching, twelve or fifteen women are employed in this room, preparing the ware for the etcher.

Establishment in Pennsylvania.—Entering on the first floor four sand-blasting machines are found. Each is simply an ordinary sand blast, but is covered. A globe to be frosted is put on a spindle and the cover of the machine dropped down. The blasting is entirely under cover, but the exhausts do not work well, and the workers say that some sand escapes. Men only are employed as sand blasters, but women do the necessary washing off close by. All four machines are under 100 pounds pressure. This gives a pressure of 25 pounds to each one.

The harmful effects of the breathing of fine sand and glass particles is disputed by some employers, although they are familiar with the fact that considerable irritation of the eyes and throat is caused. In the opinion of practically all medical experts the harmful effects of such dust are very serious. Everywhere those working under such conditions are especially subject to respiratory diseases, and the mortality from consumption is excessive in almost direct proportion to the amount of dust.

ACID ETCHING.

Acid etching, as previously described, consists in the exposure of an article in a hydrofluoric acid bath. The article is previously designed, the portions which it is not desired should be affected by the acid etching being covered with wax. The unwaxed portions are quickly eaten by the acid and become opaque. In the usual method of doing this work an open tub of acid is used, a hood with an exhaust pipe being placed immediately above but not entirely covering the tub. The worker, wearing rubber gloves and a respirator, dips the articles in the acid or places them in a frame work just above the acid. Men are usually employed at this work, but in two factories women were so employed regularly, and in several others it was found that women were occasionally used.

The conditions under which the work is done and the evident effects of the work are indicated in the following excerpts from the reports of the field agents:

Establishment in Pennsylvania.—The acid etching is done in a small room, about 9 by 12 feet. There are several boxes and buckets of hydrofluoric acid in which the ware is dipped arranged along one wall, and a large tank in the middle of the room filled with hot water in which the glass, after having been dipped in the acid, is washed. Two women do this washing, which requires almost constant immersion of the hands in the hot water. One of the women also helps the men in charge to dip the ware in the acid. This etching room was visited several times and on all occasions there was a very strong odor of the acid. The windows of the room were kept closed. There is a hole about 10 inches in diameter, but there is no hood over the acid, and there appeared to be no exhaust to remove any considerable portion of the fumes. The ventilation depends on the gradual percolation of fresh air into the room through the aforementioned aperture and of not very good air from the adjoining sand-blasting room and through doors and windows.

Establishment in Pennsylvania.—These rooms are provided with very effective exhaust fans. They are separate from the other workrooms and employ three men and one man, respectively. There was practically no odor of the acid observable, but it is impossible to get rid of all the acid fumes. It is interesting to note that the proprietor remarked to the agent in the acid polishing room that the latter should not remain there more than a minute or so, as the fumes would attack and blur his spectacles. As the injurious nature of the acid fumes is well established, it seems that despite good devices for carrying off the fumes there is still considerable danger to health on their account.

Establishment in West Virginia.—In the plate-etching department the agent talked with the man who dipped the waxed glass into the acid. This etcher stated that he had been doing this work for five years. At the time he began he weighed 170 pounds and at present weighs 125, all of the reduction in weight, in his opinion, being due to the contact with the acid fumes. He seemed very haggard and stated that he suffered frequently from headaches. He had lost one and one-half days in the week of the visit on account of headaches. In addition, the etcher stated that he had been frequently burned by the acid, which penetrated his rubber gloves, and he had had his face, and particularly his eyes, made very sore by the acid fumes.

Establishment in Ohio.—Some of the objects are covered with paraffin, exposing only the figure to be etched by the acid. Most of the articles handled here, however, are individual gas and electric shades, a part of which it is desired to "frost" in order to render the light more agreeable. In this establishment this frosting is done by girls in a room adjoining the large workroom. This acid room is about 40 by 20 feet and has along the wall a continuous shelf at intervals on which are shallow tanks containing a solution of ammonia and hydrofluoric acid. There is room altogether for about twenty frosters. Over each tank is a hood, from which a pipe leads to the outside. The hoods, however, are about 2 feet above the tanks, and the exhaust apparatus is very inadequate. The agent observed that the girls picked up the shades with their bare hands, placed them in the acid, and then after a half minute or so picked them up again, placed them on one side, whence the washer picked them up and dipped them into a water tank to wash off the surplus acid. The girls' hands did not come into contact with the liquid acid, as only part of the shades was being frosted at the time, but their hands and arms were unprotected, and although only two frosters were working in the room at the time there was a very perceptible and unpleasant odor in the room. The bookkeeper and paymaster stated that the girls often have trouble with their eyes as the result of working in the acid room, and that several have had their hands, arms, and faces badly injured by the fumes and have had to quit. (At the time of the agent's visit there was an almost imperceptible draft created by the exhaust apparatus, but very inadequate for removing all the fumes.)

Establishment in Pennsylvania.—A Negro, an assistant to the etcher, washes off. His hands looked as if they had been parboiled. He asserted that gloves were too clumsy, so he never wore them. But he did smear his face with silver polish and lard in order to prevent irritation of the face. The eyes, however, were irritated greatly by the acid in the air.

Establishment in Ohio.—Mrs. L——— has been employed at the glass company for about two years. Her work has been etching and washing off after etching. The "boss" and herself are the only two ordinarily who do the etching. In washing off rubber gloves were provided formerly by the company, but the gloves have disappeared and the work is now done with bare hands. The acid in the water causes yellow sores on the hands. Mrs. L———'s hands were covered with red spots about the size of a nickel. These spots are extremely sensitive to the second immersion in the water. A change of "bosses" has something to do with the effect of the acid water, Mrs. L——— asserts. The "new boss" claimed that his predecessor did not understand the use of the acid, and consequently excessive irritation resulted. The truth is, however, that no great change for the better has been made, and without the use of rubber gloves it is unlikely that this unpleasant feature can be eliminated.

But washing off is far preferable to etching, because the hood provided at this establishment does not draw off the fumes properly. Irritation of the face and eyes results. Some time ago Mrs. L——— was out of work three days on account of swollen face and inflamed eyes. The face becomes red and painful, especially on rainy and snowy days. In winter fumes are particularly irritating on account of the great amount of moisture in the air and the tightness with which the room is closed. The lungs, nose, and throat are irritated by the fumes. The "boss" does the etching sometimes, but Mrs. L——— evidently has to do the greater part of this work herself.

Miss P———, washing in etching room, has been employed at this establishment for five months and is about to leave on account of the acid making her hands sore and stiff. She insisted that the company would not furnish gloves, although the girls ask for them. The biting of the acid is noticed by her while washing, although Mrs. L——— says that in her own case the hands do not begin to get irritated until after the work. Mrs. L——— volunteered the information that Miss P——— was quitting on account of the acid because she "was not used to it and her hands had not been toughened."

The effects of the acid are sometimes experienced after the article has been etched and has left the acid room. It was not infrequent to hear complaints of this character from persons engaged in handling the articles shortly after etching. The following extract from a report of an agent will illustrate this:

Establishment in Pennsylvania.—In 1904 an acid process was introduced in place of the old "mudding" process for preparing the surface of the glassware for gold paint. The new method is as follows: Acid baths are placed in the bottom of an oven or furnace, which is then filled with tiers of glassware, like shelves in a box. The furnace is then closed tightly and the interior subjected for twelve hours to a heat of about 1,500° F., the warping point of the glass. This vaporizes the acids which attack the surface of the glass. When cold, or cool enough to handle, the glass has a milky colored smoke all over it. The glass is put into the furnace on heavy iron trays, which stay in the furnace and are subject to the action of the acids.

The carrying girls carry these trays to the scrubbers. They say there is something about the iron trays that eats their clothes; that when water gets on the trays at the scrubbers' table and this water runs off the tray on their shoes it eats into the leather. Several mothers of carrying girls reported that their girls had come home with "black lips." There is a general although smothered complaint about the acid in the occupation. The mothers always report the same story of "black lips," which, it seems, is their name for a complaint peculiar to carrying girls and which seems to last two or three days.

DUSTING AND SPRAYING.

The color decorations given to many glass articles, such as fancy lamp shades, are applied sometimes by brush, sometimes by spray. The color mixtures differ greatly in character, but almost always they contain at least lead and arsenic, both of which are poisonous under certain conditions. When the application is made by means of a brush and liquid paint, the danger is slight. But it is always present when the application is "dusted" on in the form of a powder or is sprayed from an atomizer, for, in the absence of proper means of drawing off the excess, the poisonous spray or dust may escape into the atmosphere and be directly inhaled by the workers. The several factories engaged in this class of work differ greatly in their degree of provision of proper hoods and exhausts.

No information was obtained in this investigation showing with conclusiveness that the spraying and dusting operations had or had not been the cause of specific diseases or disorders. The difficulty of obtaining such information was due, as has been suggested, to the absence of continued medical study over a sufficient period to relate the effect to the cause.

In any case, it would seem certainly true that the actual inhalation of dusts and sprays recognized as poisonous can not but have deleterious effects upon the health of the workers. Such inhalation, moreover, is not a necessary feature of the work. Effective hoods and exhausts have been devised which eliminate all danger and are in actual and efficient use in a few establishments.

The following excerpts from field reports will serve to show more clearly some of the conditions under which the work of dusting and spraying is done:

Establishment in Pennsylvania.—The dusting is done by one girl under a hood. The exhaust was tested and found to be working well. The dusts or powders of different colors are kept in tin trays under the hood, and the application to the globe or other article is made with dry cotton held in the operator's hand. The powders are fluxes of oxides of arsenic and lead. So far as could be found no case of poisoning had ever occurred here, but the testimony procurable was so meager that positive statement can not be made.

Establishment in Pennsylvania.—In the central part of the first floor is a spraying apparatus. The article on which the work is done is placed in a hood and a man sprays it. The apparatus is a simple atomizer arrangement operated by compressed air. The mixture sprayed contains oil and the desired colors, as green. The oil causes the spray to stick to the object, which has already been dusted, as described in a previous paragraph. Arsenic and lead in various forms enter into the liquids sprayed as coloring matter, and lead poisoning is the main danger. All the excess spray is supposed to be drawn out by an electric fan exhaust, but considerable spray spatters back into the air, as the foreman readily admitted. He said that the article was not put farther back into the hood on account of the inconvenience of working with the object in that position.

Establishment in West Virginia.—For decorating, two kinds of colors are used—the cold or aniline ready-mixed paint, which is not regarded by the employees as very injurious, and the mineral dry color to be mixed with alcohol and turpentine. The turpentine, alcohol, and the dust from the dry minerals are regarded by employees as being injurious to eyes, throat, and lungs. They are made more so by too little ventilation.

Establishment in Ohio.—The company was experimenting with the enameling of certain grades of ware, and this was being done by one young woman, the brightest and quickest of the sorters being assigned to the work. In this process of enameling a whitish powder, mixed with turpentine, was blown by a steam blast against the surface of the ware to be enameled. The manager stated he did not know the composition of this powder. An exhaust had been provided completely covering the mechanism, but the top part or cover had been removed by the operator, so that she might see inside while operating. She used no respirator.

In summary of this account of the three occupations of the glass industry which are most frequently performed in such a way as to be harmful to the health of employees, it is to be noted that none of them is of large membership. Each is more or less restricted to a rather small class of ware, and thus only a limited number of decorative factories require such occupations. On the other hand, the harmful features so frequently connected with the three occupations described are not always limited to the persons directly concerned in the work. An improperly protected sand blast may affect everyone within a considerable area of the apparatus and not merely the person immediately at the work. For this reason it is impossible to estimate with any precision the total number of women and girls in the visited factories affected by the harmful conditions described. A rough approximation would be about 150 out of a total of 4,632 females normally employed by all visited factories.

TESTIMONY OF WOMEN AND GIRLS.

As has been previously pointed out the testimony of female employees, or even of their families, relative to the effect of their work upon their health is necessarily incomplete and unsatisfactory. The information obtained, however, is of considerable interest.

Schedule questions relative to the effect of work on health were asked of 1,558 women and girls. Of these 1,558, 1,510, or 96.9 per cent, apparently had suffered no ill physical effects from their work. Each of the remaining 48 women and girls was in bad health at the time of the investigation, believed that her health had declined since going to work at her present industry or occupation, and attributed the decline (and in this the family testimony was also obtained) directly to such work. In character the diseases and disorders complained of were somewhat numerous. The following is a complete list thereof, such details being added as will aid in a clear understanding in each case. This list includes three women working in the furnace room.

DETAILS AS TO ILL HEALTH OF 48 WOMEN AND GIRLS WORKING IN GLASS FACTORIES.

Cause of ill health.	Age.	Occupation.	Details of ill health.	Physical defects.	Years in present occupation.	Years since beginning work.	State.
Constant walking.	36	Carry-in girl	Swollen feet, chronic headache.	Poor eyes.	$\frac{3}{12}$	23	Mo.
	41	.....do	Internal disorder	None	$\frac{2}{12}$	30	Mo.
	18	Grinding	Leg muscles painfully strained.	.....do	5	5	Ohio.
	17	.....do	Legs painfully strained and swollen.	.....do	3	3	Ohio.
	17	Decorating	Anemia and female disorder	Undevelopment.	$\frac{4}{12}$	$\frac{6}{12}$	Pa.
	15	Washing	Pains in back and side	None	1	1	Pa.
	24	.....do	Female irregularities	Stooped	$\frac{1}{12}$	10	Pa.
	14	.....do	Pains in side	Inflamed eyes.	$\frac{3}{12}$	$\frac{3}{12}$	Pa.
	14	.....do	Chronic backache	Defective eyes.	$\frac{2}{12}$	$\frac{8}{12}$	Pa.
	15	Wrapping	Pains in limbs and back	Undevelopment.	$\frac{7}{12}$	$1\frac{6}{12}$	W.Va.
	17	Wax dipping	Pains in back	None	$\frac{3}{12}$	3	W.Va.

DETAILS AS TO ILL HEALTH OF 48 WOMEN AND GIRLS WORKING IN GLASS FACTORIES—Concluded.

Cause of ill health.	Age.	Occupation.	Details of ill health.	Physical defects.	Years in present occupation.	Years since beginning work.	State.
Heavy lifting and stooping.	16	Packing	Pains in head	None	2	2	N. J.
	19	do	Strained side	do	3	$\frac{50}{12}$	N. J.
	20	Selecting	Female disorder	do	4	5	Pa.
	18	Washing	Nausea	do	$\frac{6}{12}$	$\frac{18}{12}$	Pa.
	19	Carrying trays	Pains in side	do	$\frac{4}{12}$	$\frac{20}{12}$	Pa.
	14	do	Chronic headache and pains in shoulders.	Inflamed eyes.	$\frac{2}{12}$	$\frac{4}{12}$	Pa.
	16	do	Pains in side	None	$\frac{1}{12}$	$\frac{15}{12}$	Pa.
	19	Selecting	Pains in back	Undersized.	6	7	Pa.
	16	do	Pains in back and side	None reported.	2	2	Pa.
	18	Taking off leers.	Nervous debility	None	1	4	Pa.
	14	Wiping	Strained back	do	$\frac{11}{12}$	$\frac{11}{12}$	Pa.
	50	Packing	Rheumatism and pains in side and back.	Failing eyesight.	$\frac{2}{12}$	17	W.Va.
	14	Wrapping	Intermittent nervous headache.	Undevelopment.	$\frac{5}{12}$	$\frac{7}{12}$	W.Va.
Exposure to cold, bad heating and ventilation.	18	Carry-in girl	Irregular menstruation	None	$\frac{2}{12}$	4	Mo.
	40	do	Unnatural exhaustion	do	$\frac{7}{12}$	3	Mo.
	15	Selecting	Stomach trouble	do	3	3	Pa.
	19	Grinding	Nausea	do	3	3	Pa.
	16	Wrapping	Recurrent illness	do	$\frac{1}{12}$	$\frac{1}{12}$	W.Va.
Standing on wet floor and wet clothing.	20	Washing	Rheumatism	do	$\frac{2}{12}$	$\frac{2}{12}$	Ohio.
	17	do	do	do	2	2	Ohio.
	17	Wrapping	Chronic throat affection and cough.	do	$\frac{30}{12}$	3	Pa.
	16	Washing	Recurrent illness	do	$\frac{3}{12}$	2	W.Va.
	15	Decorating	Recurrent colds and cough	Undevelopment.	$\frac{4}{12}$	$\frac{30}{12}$	W.Va.
	13	Washing	Recurrent colds; affected throat.	do	$\frac{5}{12}$	$\frac{5}{12}$	W.Va.
Long hours and close confinement.	16	Transferring	Recurrent illness	do	$\frac{14}{12}$	$\frac{18}{12}$	Pa.
	16	Machine operator.	Anemia	do	$\frac{7}{12}$	$\frac{10}{12}$	Pa.
	17	Selecting	do	None	$\frac{4}{12}$	$\frac{10}{12}$	Pa.
Operating glazing machine.	27	Glazing	Strained	Not reported.	2	9	Ohio.
	14	do	Anemia	Undevelopment.	$\frac{2}{12}$	1	W.Va.
Odors from materials used in decoration.	28	Decorating	Stomach trouble	None	2	14	W.Va.
	21	do	Affection of lungs	Nearsighted.	3	$\frac{66}{12}$	W.Va.
Turpentine fumes	19	do	Turpentine poisoning	None	$\frac{5}{12}$	$\frac{5}{12}$	Pa.
Sand dust	15	Sand blasting.	Inhalation of sand	do	$\frac{4}{12}$	1	Pa.
Hydrofluoric acid fumes.	15	Sorting	Affection of throat	do	$\frac{3}{12}$	1	Pa.
Noise of grinding wheel.	20	Grinding	Chronic headache	do	3	3	Ohio.
Excessive heat of occupation.	16	Chute girl	Fever, general debility	do	$\frac{1}{12}$	$\frac{8}{12}$	Mo.
Not reported	17	Sorting	Chronic headache	Very bad teeth.	$\frac{7}{12}$	$\frac{7}{12}$	N. J.

CHAPTER XVIII.

REASONS FOR GOING TO WORK AND PERMANENCY OF EMPLOYMENT OF WOMEN AND GIRLS IN THE INDUSTRY.

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REASONS FOR GOING TO WORK IN THE INDUSTRY.

In the course of this investigation an effort was made to determine how far the industry was a permanent source of employment for women workers, and to ascertain from the individual an expression of the reason for their choice of the glass industry as a field for occupation. It will be understood that a woman's reason for going to work might be entirely different from her reason for entering the glass industry. For instance, economic necessity, which in some form or other is behind practically all of the reasons given for going to work, would not in itself direct the labor which it impels into any specific channel. Given the necessity or desire to go to work, the reasons for going into the glass factory were often social. "I wanted to work, and I knew a lot of girls in the glass factory, so I went there," is a common answer to the question. Or, "I had a friend there and wanted to be with her." In a few instances it was their fear of machinery that decided them to seek work in a factory where there is little machinery to be found. The social element, however, seems to predominate in the reasons given. Men have practically divorced the industrial and social life. Companionship is rarely one of the "working conditions" for which men strive or seek. There is of course some social interchange during lunch hour, but it is comparatively unimportant and never essential. Women, on the other hand, have not been in factory life long enough to give to it its eight or ten hours a day as though for the time no other life existed.

They do not separate themselves from their social instincts when the whistle blows. Companionship at lunch time and while going to and from work is a sufficient incentive to make large numbers of women change their place of employment, or to determine their choice of factory or industry.

In the following table the reasons for going into the glass industry are given in some detail for 902 females in the industry from whom answers to this question were secured. Of these 93 answered "friends there," but "opportunity," which was the answer in 149 cases, also includes an element of "friends there." That is to say, the answer of "friends there" in 93 cases are cases in which the social element of association and companionship was the determining cause. In many of the 149 cases an acquaintance or friend was working in the glass factory, and being in a position to know of a vacancy and of a woman who wanted work was enabled to bring the two together. In these cases, however, the friend or acquaintance only led to the opportunity and the resulting employment may or may not have had a social element of companionship in it.

It is of possible interest that the one woman in Ohio who went into the glass factory as an experiment to see how it compared with housework, and found she "preferred housework," was employed in the "acid etching" room of a factory where she came in more or less direct contact with hydrofluoric acid almost constantly.

REASONS FOR GOING INTO THE GLASS INDUSTRY GIVEN BY 902 FEMALES, BY STATES.

Reasons for going to work in glass factory.	Illinois.	Indiana.	New Jersey.	New York.	Ohio.	Pennsylvania.	West Virginia.	Total.
Opportunity or convenience	15	18	8	18	35	33	22	149
Other members of family there	6	13	2	10	18	21	7	77
Friends there	6	7	2	11	20	25	22	93
Only obtainable employment	22		6	4		119	15	166
Only obtainable work with fair pay						8		8
Only place employing girls					9			9
Only place employing girls so young and small (a)							5	5
Too small or too young to do any other work (cutting off, stamping, papering, and cartoning)						8		8
Only place employing colored women	1							1
Clean, easy work; good pay (inspect ware, tie on, wash, chip, grind, graduating, fit stoppers, tie stoppers, make pasteboard boxes, select, cap, wrap, fit caps. sort, carton, smoothing, tubing collaring, chipping glass, machine labeling, decorating, touching up, dipping in wax, wiping tumblers, etching, flute cutting, cutting prints, lamp fitting)	1		23	5	20	7	27	83
Good pay (better pay)	49	4	9		14	30	61	167
Better pay with nights and Sundays free	3							3
Better pay and chance to learn trade of decorator							3	3
Better environment and associates			4	2	2		1	9
Best place obtainable						9		9
Early closing on Saturdays	1						1	2
Fewer hours than stores; nights and Sundays free						4		4
Steadier work		1						1
Reputation of factory treating employees well				1				1
To work for good, responsible people							1	1
To compare glass factory work with housework (prefers housework)					1			1
Unable to speak English well enough to get work elsewhere						9		9
Lacking education for anything better (lining, stamping, grinding chimneys, sorting, glazing, cartoning)						6		6
Doctor advised work in factory rather than helping mother at home, as having her hands in water produced rheumatism						1		1
Nearsighted, thought she could do wrapping							1	1
In preference to—								
Housework	11	4		3	10	12	4	44
Sewing						1		1
Enameling works		1						1
Clerking			1	4	2			7
Candy store						1		1
Cotton mill			2					2
Jute mill				1				1
Baking-powder factory	1							1
Shoe factory (no machinery)				2				2
Glove factory				2				2
Carpet factory				1				1
Tin factory				1				1
Cigar factory						1		1
Chewing-gum factory						1		1
Telephone office or housework							1	1
Silk mill because of absence of machinery				2				2
Any other kind of work	1				9	2	4	16
Total	117	48	57	67	140	298	175	902

[a] These 5 girls were aged, respectively, 10, 13, 13, 13, and 14 at time of going to work.

PERMANENCY OF EMPLOYMENT IN THE INDUSTRY.

The great majority of the women in the industry are not of the industrially migratory class, industrial "birds of passage," so to speak, who do not care for permanent positions, although expecting to work continuously at something. No doubt the glass industry has a share of those who frequently "want a change," who "believe they will try something else," etc. Sufficient data were secured, however, to show that the industry holds its women workers. Of the women 16 years of age and over, from whom personal data were obtained in which answers covering this point were complete, a very good proportion had spent their entire working life in the glass industry.

Those, for instance, who gave 16 and 17 as their age numbered 329; of these 183 had worked only in the glass industry. If we take the length of time at work, we find that of the 16 and 17 year old girls 79.6 per cent had been at work nine months or more in some industry, 63.2 per cent had worked in the glass industry only, 67.8 per cent of this age had worked at something for one year or more, and 45.9 per cent had worked at glass only, 33.7 per cent had been at work two years or more, 21 per cent in the glass industry only. Taking the next age group, which consists of young women, 18, 19, and 20 years old, reports sufficiently complete were had from 221 working in glass factories, of whom 111 had worked only in the glass industry. Of these 85.1 had worked one year or more at something, and 66.5 per cent in glass only, 48.9 per cent had worked for three years, and 29.9 per cent had worked continuously in this industry.

The following table shows, by age groups, the number and per cent of women who had spent their whole industrial life in the glass industry. This table, which is compiled from the individual reports, shows that of the 329 women 16 and 17 years of age found working in the glass industry 55.6 per cent had worked in no other, while of 221 women 18, 19, and 20 years of age 50.2 per cent had worked only in the glass industry. Of the total of 708, 51 per cent had spent their entire industrial life in the one industry.

NUMBER AND PER CENT OF WOMEN WHO HAD SPENT THEIR WHOLE INDUSTRIAL LIFE IN THE GLASS INDUSTRY, BY AGE GROUPS.

Age groups.	Individuals at present in glass industry.	Number who had spent whole time in the glass industry.	Per cent who had spent whole time in the glass industry.
16 and 17 years	329	183	55.6
18, 19, and 20 years	221	111	50.2
21 to 24 years	106	44	41.5
25 to 34 years	41	19	46.3
35 years and over	11	4	36.4
Total	708	361	51.0

It may be of interest to compare the figures of the foregoing table with similar figures for a larger number of women, some of whom are employed in other industries. Reports are available concerning 1,140 women and girls, members of families having one or more women or children employed in the glass industry, and therefore of the same class represented in the previous table. The table following shows that of this much larger group of women and girls 52.5 per cent had worked in one industry only, as compared with 51 per cent for those whose whole working time had been spent in the glass industry. It would appear, therefore, from these figures that the glass industry succeeds in holding the women and girls employed practically as well as do the various other industries in the same localities which employ the same class of labor.

NUMBER AND PER CENT OF SINGLE WOMEN 16 AND OVER AT WORK WHO HAVE WORKED IN ONE INDUSTRY ONLY AND IN MORE THAN ONE INDUSTRY, BY STATES.

State.	Total number of women at work.	Number who have worked in one industry only.	Per cent who have worked in one industry only.	Number who have worked in more than one industry.	Per cent who have worked in more than one industry.
New York	62	24	38.7	38	61.3
New Jersey	82	41	50.0	41	50.0
Pennsylvania	410	225	54.9	185	45.1
Ohio	166	95	57.2	71	42.8
Indiana	49	26	53.1	23	46.9
Illinois	115	72	62.6	43	37.4
Wisconsin	15	6	40.0	9	60.0
Missouri	5	3	60.0	2	40.0
West Virginia	190	84	44.2	106	55.8
Maryland	26	10	38.5	16	61.5
Virginia	14	9	64.3	5	35.7
Tennessee	5	2	40.0	3	60.0
Georgia	1	1	100.0		
Total	1,140	598	52.5	542	47.5

OPINIONS OF MANAGERS REGARDING THE EMPLOYMENT OF WOMEN.

While there was a general agreement in opinion among manufacturers as to the desirability of boys in the furnace room, there was a marked variance of opinion when it came to the question of women in the glass industry.

The employment of boys is a part of the traditions of the business, while the employment of women in most of the occupations is untraditional, an innovation in fact, and the opinions about it are in a formative, uncrystallized condition.

This is best illustrated by a statement by one of the most progressive and influential of the bottle manufacturers. Much of his product is of that better grade of bottles that have a glass stopper which usually must be ground and fitted so as to be air-tight. Women are employed to wash the stoppers and bottles after grinding. The plant is strictly union, and while the union covers the occupation of grinding, it does not cover that of washing. This manufacturer complained that the union would not let him have women to grind stoppers, although he could get them for $4.50 to $6 a week, whereas the union men demanded a scale of $4 a day. Women, he said, could do the work just as well. He considered it an imposition forced upon him by trade unionism that he was unable to employ women as stopper grinders. In the course of the same conversation he referred to his women employees in the stopper-washing room, and said that they were a good class of women and girls, that he seldom got hold of one of such questionable conduct that it became necessary to discharge her; "but," he said, with great emphasis, "it is a shame to have women in a glass factory. Every time I go through that room my heart sinks and my conscience rebels." He could not have been inveigled into an inconsistency of statement on the subject of boy labor, but on the employment of women he was on both sides of the question within a period of five minutes. This is related only to show that opinion on this point has not yet congealed. Time has not traditionalized the employment of women; the moralities of the problem have not been codified by custom.

Below are a few extracts from the reports concerning establishments by field agents, which embody the opinions of managers or others in charge of plants.

One superintendent expressed the opinion that an establishment of that kind is no fit place for a woman to work. He said that he has, in his experience, discharged more men for offering insults to women than for any other cause. Whenever a complaint is entered, or a case in any way comes to the superintendent's notice, an investigation is made and the offending man is discharged; if the investigation proves the woman also at fault, she also is discharged. An establishment rule prohibits the men lounging in or about the women's workrooms during the noon hour or tempos.

In another factory all the work is done by men; no women are employed. The manager says he believes the glass factory is no place for women, and will employ none.

The manager of another factory, speaking of the women employees, pointed out that they are well cared for; as evidence he pointed to a sign tacked conspicuously to the wall of the packing room where they work, on which was printed in big letters, "No one is allowed to talk to the packers. This means you." The sign is there to keep blowers away. It is because of the necessity for this sort of protection that this manager declared he would rather have men packers altogether, although he believes that a woman's fingers, being smaller and nimbler than man's, are better adapted to packing small ware.

In a New Jersey factory up to three years ago only men were employed at packing. At present three girls do the work that was formerly done by five men, and it is the opinion of the manager of the establishment that eventually the male packers will be entirely eliminated and only women will be employed. This would be a great saving, he maintained, as the women will do the work better and cheaper.

At a Pennsylvania plant where women were employed in sorting and packing up to several years ago, but have now been displaced by men, men's work was reported as more efficient. The management, moreover, did not want to have men and women work together. Men have been increasingly employed to do boys' work.

At one New Jersey plant women were employed some years ago at taking ware off the leers. That, however, has been discontinued, for several reasons: In the first place, according to the manager, women were more expensive than men, for, while they worked for a less wage, they could not handle efficiently the heavy ware, and they could not handle their own boxes and trays, for which work additional men had to be employed. Aside from the above-mentioned disability, he believed women less efficient in handling the ware. Another reason assigned was that "women made too much trouble"—i. e., men were always "hanging around" the leer room, talking to the women and hindering them in their work—and he also considered the moral effect on both men and women bad. He said, moreover, that he believed that "women and men had no business to be working near together under the conditions existing in the blowing and leer rooms of a glass factory."

In March of 1902, during the south Jersey strike which shook the very foundations of things in the glass industry in south Jersey, the women were put into the packing rooms of one of the plants. At that time, too, women were put back of the leers to take off ware, which is said to be the first instance in the history of the glass industry that women were put at that work in a bottle house. After the strike was over the women were taken off the leer work, but they have found their way to that work in many other plants, notwithstanding the almost universal sentiment, among foremen at least, that women are in the wrong place behind the leers.

PART III.

CHAPTER XIX.

EMPLOYMENT OF WOMEN AND GIRLS IN MAKING INCANDESCENT ELECTRIC LAMPS.

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CHARACTER AND IMPORTANCE OF THE INDUSTRY.

In connection with a study of the work of women one of the newer industries which clearly reflects the history of the introduction of women into factory work is the manufacture of electric lamps. There are few industries in which women form so large a proportion of the working force, and there is almost no other in which there has been the same degree of adaptation of processes to the special abilities and aptitudes of women.

In its original conception the incandescent lamp required the greatest ingenuity and scientific accuracy, and consequently in the very early days of the industry the lamp was manufactued by specialists, who knew not only the method of manipulating glass and wire, but also the basic theory upon which the lamp was constructed as well as the technical reasons why the vacuum must be perfect, why platinum must be used where the wire passed through glass, and the many other highly technical points involved in the successful construction of this familiar article. Each of these men (in the first Edison factory at Menlo Park only men were employed) made by hand a large part of the completed lamp, for there was little subdivision of labor, and the standardization was only that secured by careful and skilled hands. This method of manufacture was however, too costly, and it is certain that unless the cost of production could have been greatly decreased the incandescent lamp could never have been more than a scientific appliance and an interesting novelty. The second step in the course of development consisted in a very minute subdivision of the operations, which was carried to such an extent that each operative had only one or two simple mechanical motions to perform, all the work being so standardized and simplified that the operative was in no way handicapped by knowing nothing of the interrelation of the parts or of the technical terms used in connection with the work. In order to simplify the work various small mechanical devices were introduced, which, however, merely relieved a portion of the hand work without entirely displacing hand manipulation. These changes made it possible to introduce women to perform a great deal of the work, though it left a number of the more complex and accurate operations, which were still considered "men's work."

There has succeeded in this, as in most other industries, a third period of development, that of machine production, which is characterized by the reconsolidation of a number of the minutely divided processes, which are now performed by machines, either automatically or more frequently under guidance and control. This consolidation of operations has of course greatly simplified the essential processes and increased the rate and economy of production, but it has not, in the majority of cases, simplified or made easier the work of the operator. Not only has the intensity of the work been greatly increased and rendered more inflexible by the pace setting of the machine or of another operative, but the necessary motions have themselves been increased both in number and complexity.

As a result of this development of the industry it is now almost completely in the hands of women, the few men who remain being retained either because of their ability to do night work, or because they are absolutely needed in certain occupations of which the greater number, such as stoking and dynamo tending, are only indirectly connected with the production of the lamps, while a very few, such as treating and carbonizing, are very difficult or peculiarly masculine operations which form a part of the essential processes. While it is impossible to show for the entire industry the relative proportions of men and women,[a] the following table shows the facts for the eight establishments studied, which not only produce a large percentage of the total product, but on account of their wide geographical distribution may be taken as fairly typical of the industry.

NUMBER AND PER CENT OF MALE AND FEMALE EMPLOYEES IN INCANDESCENT ELECTRIC LAMP ESTABLISHMENTS, BY AGE GROUPS.

Age and sex.	Number.	Per cent.
Males, 16 years of age and over	815	19.8
Females, 16 years of age and over	3,224	78.2
Males under 16 years of age	12	.3
Females under 16 years of age	72	1.7
Total, all ages	4,123	100.0

The varieties of incandescent lamps, particularly during the last few years, have become very numerous, and are technically interesting and important, but since the interest here is chiefly in the relation of the operator to the work, it is necessary to describe only the processes of manufacture of the ordinary carbon-filament lamp and to indicate for the other types only the essential differences which they present.

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[a] The census of manufactures of 1905 gives separately for electric-lamp factories only the value of the total product. In the table showing number of employees electric-fixture establishments are included.

The processes of manufacture differ greatly not only between different establishments, but, owing to the recent very rapid development of the industry, hand processes or out-of-date machines are frequently found by the side of the newest and most highly developed. These differences, however, are in the degree of development and perfection to which they have been carried rather than in the basic methods used, as they are all outgrowths of a long series of patents. For this reason it seems best to describe, in the most highly developed form in which they are found, those operations which are essential, indicating, where the processes are materially different, wherein such differences consist.

The complete carbon-filament lamp consists of five parts—the "bulb," the "carbon filament," the small glass tube or "stem" within the bulb, the "leading-in wires," and the metallic "base." The processes of manufacture, therefore, consist in carrying each of these parts to a state of completion and then properly assembling them. As this work is organized under several well-defined departments concerned either with the manufacture of one or more of the parts or with the assembling of the whole, it will be simplest for the purposes of this description to follow the lamp in course of construction through these various departments.

In connection with this description it seems desirable to give some idea of the rate at which the work is done, since much of the difficulty of the work is due to the speed with which it is performed. The output figures given are based on records kept at one of the more modern factories for a period of six weeks for the purpose of determining a minimum daily output for its employees. In order to avoid overburdening the description and to allow the reader to gain as clear an idea as possible of the nature and order of the processes, detailed discussion of the effects on the employees, either of the work as a whole or of specific occupations, has been postponed. Furthermore, since the majority of the occupations are performed exclusively by women or girls, the sex of the operatives is noted only where several men are employed.

PROCESSES OF MANUFACTURE.

FILAMENT DEPARTMENT.

In this department the carbon filaments are completely finished and made ready for the lamp, in the course of which preparation they pass through thirteen distinct processes.

Preparing.—The first two processes have to do only with getting the raw material into a state in which it can be used. Thoroughly cleansed and refined cotton is first completely dissolved in a solution of zinc chloride, the mixing being done mechanically in large revolving drums.

Boiling.—The solution, which is at this time a very dark brown liquid, viscid and of a uniform consistency, is next drawn off into glass vessels known as "guns," that resemble bottles the bottoms of which have been drawn out into tubes and the openings of which are at this time completely stopped. These vessels are then immersed in vats of boiling water in order to drive out any air bubbles which would later ruin the filament.

Squirting.—With the next operation the manufacture of the filament proper begins. The "guns," suspended in racks, are covered with rubber hoods which are connected with pipes carrying compressed air at a pressure of 18 to 20 pounds per square inch. By the pressure of this air the liquid is forced out through dies of the proper size in the form of a continuous thread several yards in length. This operation, which is known as "squirting," is looked after entirely by men, whose duty is to change the "guns" when they are exhausted and see generally that the operation proceeds properly. The threads as they emerge from the dies fall into a vessel containing alcohol, which hardens them and also dissolves out a portion of the zinc chloride. The vessel in which the alcohol is contained is mounted on a slowly revolving platform, and the thread as it is forced out of the fine opening in the gauge receives a slight turning tendency, the result of which is to cause it to coil up in a very regular manner at the bottom of the vessel.

Washing.—The thread, which is now continuous, resembling in color and general appearance fine violin strings, is next given a thorough washing, passing in the process through several baths, in order to rid it of any remaining zinc chloride.

Drum winding.—After being thoroughly cleansed the thread is wound on drums in order to dry it. Usually these drums are made of wood and are about 3 feet in diameter by 5 feet wide, but in some cases much smaller drums of sheet copper are used, which are steam heated in order to facilitate the drying. The thread is fed on the drum from the coils, the work of the operator being simply to see that the thread is kept taut and to tie up any broken ends, the guiding being automatically done by a small holder which is mounted on a threaded screw connected by gearing with the drum. When the threads have been thoroughly dried, they are cut straight across, thereby acquiring a uniform length just equal to the circumference of the drum. These threads are wound loosely into skeins, which are carefully marked. The operation is known as "drum winding" and is done altogether by girls, who are paid for the larger drums $1.25 per hundred, of which they can wind from seven to twelve per hour. Each operator tends four drums, winding or cutting the thread from one while the other three are drying. The nature of the work is such that she must stand all the time, but the periodical change from winding to cutting renders the work less fatiguing.

Form winding.—These skeins next go to the "form winders," where the thread is wound upon metal or other forms, which give the filament the proper shape, which it will retain through all subsequent processes. This work is done entirely by hand, the form being held in a chuck and rotated with one hand while the threads are guided and kept taut with the other. The operators, all of whom are women, may sit all the time at this work. They are paid by the piece, the average earnings per hour being 14.21 cents.

Baking.—The forms, with the threads wound upon them, are next baked in small ovens in order to drive off any remaining moisture and give the filaments a permanent and proper shape. The ovens are tended by both men and women, their duty being simply to place the forms in the ovens, see that the temperature is properly regulated, and remove the forms at the right time.

Paraffining.—The threads are next cut from the forms and, if they are not to be used immediately, are given a thin coating of paraffin to protect them from any changes that may take place before the filaments are carbonized. In the process of carbonization this paraffin is of course completely volatilized.

Carbonizing.—After this the filaments pass to the carbonizing department, where they are packed in layers in square carbon crucibles, each layer of filaments being covered with carbon in the form of finely ground peat and separated from the layer above by a carbon plate. The peat prevents the filaments from being distorted by the intense heat to which they are later subjected. They are first put through a preliminary roasting process, where they are kept at a comparatively low temperature for a long time. The filaments are then repacked in graphite crucibles and placed in a different furnace, where they are subjected to a temperature which is very gradually raised until it reaches approximately 3,000°, the entire carbonizing process requiring a little over four days for its completion. When removed from this furnace, the filaments are pure carbon and are very fragile. The entire process of carbonization is done by men.

Sizing.—Up to this time the carbons have been handled in bunches, but they are now separated and tested for size. This may be done either by means of a specially delicate form of micrometer or much more expeditiously and accurately by an electrical method. In the latter case the process consists in introducing the filament into a circuit connected with a galvanometer. The operator inserts one end of the filament into a glass tube, which, by means of a mercury contact, completes the electrical circuit and actuates the galvanometer needle, which is caused to swing around an arc so graduated as to read directly in the unit of measure used in sizing the carbons. By the side of the operator is a rack upon which the tested carbons are hung according to their indicated sizes. This operation is performed entirely by girls, the only requirements being great care in handling the filaments and accuracy in reading the galvanometer. The operator may sit during the entire time.

CUTTING.—The carbons, which are now in bunches of uniform diameters, are next cut so as to be of the same length. For some purposes the filaments are roughly cut by hand, but in most cases the work is accurately done by a special cutting machine, which is very delicately adjusted. This operation is performed entirely by girls, the only requirements being delicacy in handling the bunches of filaments, to avoid breakage. The operators sit all the time and receive for the work an average hourly rate of 14.69 cents, paid upon the time basis.

COUNTING.—After cutting, the filaments are counted. This is done entirely by weight, tables having been prepared which show at a glance just how many filaments a certain weight of any size represents. The nature of the work requires that the operators, all of whom are girls, sit all the time.

TREATING.—The carbonizing process referred to above does not give absolute homogeneity throughout the length of the filament, and, in order to secure this very necessary result, all the carbons are subjected to a process known as "treating." This consists fundamentally in bringing the filament to a state of incandescence in the presence of hydrocarbon vapor, the carbon from which is deposited on the filament when the vapor is decomposed by the heat. Uniformity is secured by the fact that the carbon is deposited on the more highly heated parts of the filament, which are the spots having the smallest diameter and consequently the highest resistance. As the success of the process depends upon its passing through several steps, it is necessary to describe it rather fully. In the most highly developed process used at present the operation is as follows: The ends of the carbon are first inserted into clamps attached to what is virtually a stopper. The filament is then introduced into a circuit, where it is momentarily flashed, the length of the flashing being determined by a commutator, which automatically limits the time of incandescence. The object of this is to roughen the surface of the filament, so that the treating process proper will give better results.

The flashing is done either under a semiopaque hood or in the open light. In the latter case the operation is at first very trying on the eyes, although it is claimed that the eye later is able to adapt itself to the constantly changing brilliancy of the light. The stopper, with the filament attached, is next inserted in a cylinder, in which in order to give the proper results and to prevent explosion due to the mixture of air with the gasoline vapor, the following process is carried out: The cylinder is first exhausted, gasoline vapor is next introduced into the cylinder, and the filament is brought into an electrical circuit, which brings it to a state of incandescence and causes the carbon from the gasoline vapor to be deposited on its surface. When all portions of the filament have reached a certain minimum resistance, the current is switched off and the now completed filament is withdrawn. In the less highly developed processes used by several of the establishments the chief difference is that the various steps of the process are not automatically carried out, but require the constant attention of the operator. The operators, the greater number of whom are women, sit during the process, which is one requiring varying degrees of skill, based upon whether the work is automatic or dependent upon the judgment of the operator.

Spot testing.—In order to insure that the carbon is perfect and ready for use in the lamp, all of the filaments pass through what is known as the "spot test." This consists simply in bringing the filament to a state of incandescence in a vacuum, when, if it is not entirely uniform and homogeneous, bright spots will appear. Filaments which are shown by this test to be defective are thrown out. This work in all the factories is done under particularly good conditions, the operators' eyes being shielded by the semiopaqueness of the cylinder from the brilliant light of the incandescent carbon. Although several further tests are made of samples in order to check the instruments and verify the work of the operator, the filaments are at this point entirely complete and are packed away in cartons until they are wanted for use in lamp making. Throughout the filament department the chief requisites are extreme care and delicacy in handling the carbons, and, though the most complete precautions are taken in this direction, the breakage still amounts to approximately 50 per cent.

STEM MAKING AND MOUNTING DEPARTMENTS.

The stem, that is the small tube which is seen inside the completed lamp, consists essentially of two parts, the shaped glass tube and the wires which pass through it and to which the carbon filament is later attached. Each leading-in wire, as will be noted from a careful inspection of a lamp, consists of a small copper wire to which is welded a very fine platinum wire, which in the completed lamp is tightly sealed in the glass itself, the ends just projecting on either side. The necessity of using platinum, which is very costly, is due entirely to the fact that there is no other known metal which has a coefficient of expansion approximately equal to that of glass and which consequently will not crack the glass when both are exposed to a high degree of heat.

Wire welding.—The welding of the platinum to the copper wire is commonly done by hand, although very recently an automatic machine has been introduced to do the work. In the hand process the girl operator holds in one hand a bunch of copper wires which are one by one heated almost to the melting point in a very high-pressure gas flame. With the other hand, using a very small pair of pinchers, she brings the end of the platinum wire into contact with the fused copper, holding it there until a perfect weld is formed. In the machine process the wires are automatically fed from reels into the machine, heated to the proper point, welded, cut off at the proper length, and counted into lots of 400. One girl tends two machines, her one duty being to see that the machines run properly and to take care of the finished wires. From every point of view the machine process is a most decided advantage over the hand process. One girl tending two machines is, on the most conservative basis, able to do the work of five hand operators, a much more perfect weld is formed by the machine, and the operator is relieved of the unpleasant conditions connected with the hand process, which obliges the operator to lean over a gas jet, the fumes and heat from which, particularly in hot weather, are extremely disagreeable. Furthermore, the work requires the closest attention and the platinum wires are so small that they can be handled only by one possessing very good eyes. In hand welding the operators may sit or stand at pleasure, while the machine operators are required to move constantly from one machine to the other.

Tube cutting.—The tubes used in stem making and in the process known as "tubulating" are cut from long pieces of glass tubing of the proper diameter. The small tubes for tubulating are cut by scratching their surface on a sharp-edged file, but for stem making the tubes are usually cut by a rapidly revolving carborundum wheel. In all the establishments visited these wheels are well hooded and otherwise thoroughly protected, so that the work is neither unpleasant nor dangerous. In using either of these processes the operators may sit.

Stem making.—The process of stem making consists of two parts, the making of the flare at the top of the stem and the sealing in of the leading-in wires and anchor wire at the bottom of the stem. In the more highly developed form of manufacture, both of these operations are performed by a single machine, which is tended by two operators, the "feeder" and the "finisher." The machine consists essentially of a circular rotating platform on which are mounted a number of holders. Into each of these holders, as they pass, the finisher drops a short piece of straight tube. The upper end of this tube is, in the next part of the revolution, brought under a gas flame which heats it slightly, after which it passes under a more intense flame, which partially melts it. At this point, a plunger having a shoulder in the shape of an inverted cone, automatically enters the tube and forms a flare. The holder, containing the flared tube, then passes in front of the feeder, who inserts the leading-in wires, which are kept in the proper place by the fact that they rest in small holes countersunk in the block on which the tube rests. The feeder also inserts the anchor wire into a small holder, which is situated immediately beneath the center of the tube. The tube next passes into a very intense flame, and when the lower end is properly melted, the finisher presses a lever which brings up the anchor wire and thrusts it through the center of the tube and a moment later brings together a pair of jaws which pinch the end of the tube together. This securely holds the leading-in wires and the anchor wire in place and also makes the pinched end of the stem air-tight. Of the two operators, the finisher is the more skilled and receives a higher rate for her work. In making stems by the hand process, one operator does nothing but make the flares. Her work consists in inserting into a revolving chuck the small piece of tubing of which the stem is made. The outer end of this tube is partially melted by exposure to the very intense gas flame, and the operator, inserting into the end of the tube a tool called a "carbon reamer," which in shape somewhat resembles a sharpened lead pencil, widens it out into a perfect flare. The flanged tubes are then taken to another operator, who seals in the wires. The flanged end of the tube is inserted into a tool, the handle of which is hollow, for a purpose which will be pointed out later. The leading-in wires are then inserted and the unflanged end is heated in a flame until the sides collapse, the process of sealing being completed by inserting the anchor wire and pinching the melted end with a pair of pliers. The end of the tool is next inserted into a pneumatic pipe which slightly inflates the tube, and thus fills out the sides which have collapsed from the application of the intense heat. In all the processes of stem making the operators, all of whom are women, may sit during the entire time.

In order to convey some idea of the rapidity with which the machine production proceeds, it may be said that the average daily output per employee of all employees in this occupation in one of the establishments during a period of six weeks was 2,600, while the highest day's output was 3,500. This means, in the case of the average employee, that this exceedingly complex operation was performed four times in a little less than a minute, or, in the case of the most rapid worker, nearly six times each minute, and that this rate was continued without cessation through the entire ten-hour day.

MOUNTING (OR CLAMPING).—At this time the filament and the stem are each complete, so that the next process consists in properly assembling them to form what is known as the "mount." This process until quite recently was done entirely by hand without the aid of any mechanical device, except holders mounted upon a revolving platform. When the work was done by hand, the operation consisted in joining the ends of the filament to the ends of the platinum leading-in wires by small bits of carbon paste, which were applied with a fine pointed brush. Very recently, however, a semiautomatic machine has been introduced which greatly facilitates the work. The machine is very simple, the entire operation being as follows: The operator inserts into one side of a pair of grooves the platinum leading-in wires, the ends of the filament being brought into contact with them on the opposite side of the grooves. A lever carrying carbon paste at the proper points then swings down and puts a small bit of paste just at the contact points of the wires to the filament. The platform upon which the machine is mounted is then swung around, bringing a new set of grooves in front of the operator. It sometimes happens that the filament does not properly adhere to the wire, in which case the operator retouches the spot with a small brush containing carbon paste. Under either of these systems of work the operators, all of whom are women or girls, may sit. The work, although in itself very simple, requires the closest attention and the greastest care to prevent excessive breakage of the filaments. When the work was done by machine the average output per day was 1,260, the highest being 1,850.

ANCHORING.—The stem with its mounted filament next passes to an operator who deftly bends the end of the anchor wire over the loop of the filament and fastens it there with a bit of carbon paste. This is entirely hand work, the anchorer being also responsible for seeing that all the filaments which pass through her hands are properly mounted.

BAKING.—In order to completely harden the bits of paste, by which the filament is attached to the leading-in wires, they are next given a thorough baking. This is done in small ovens situated in the room in which the previous processes have taken place. The work is done almost exclusively by men. With this process the mount is complete, and the next step in manufacturing the lamp consists in preparing the bulb for use.

LAMP DEPARTMENT.

Very few incandescent-lamp factories in the country, and certainly none of the larger ones, manufacture their own bulbs. In the early days of the industry these bulbs were blown by hand from pieces of tubing, and this process is still used in making the bulbs for miniature lamps, but for other types the bulbs are purchased from glass factories. The processes connected with the making of these bulbs have already been described in a previous section on the glass industry. The bulbs come to the lamp factories wrapped in tissue paper and packed in large wooden boxes.

BULB UNWRAPPING.—The first process, therefore, is that of unpacking the bulbs and removing the tissue-paper wrappers which are saved for later use in cleaning the lamps. This is done altogether by women, and the work requires that they stand continually, but otherwise it possesses no special features.

TUBULATING.—When the bulb enters the factory it differs in two respects from the form which it possesses in the finished lamp. In the first place, the neck is much longer and, in the second place, the bulb proper is completely rounded off, the familiar tip being at this time lacking. It is through this tip that the exhausting of the finished lamp takes place, and the next step, known as "tubulating," prepares the bulb for this process. This consists in forming a hole in the bulb at the point at which the tip later appears and welding over this hole a small glass tube. This operation may be performed by hand, with the sole aid of a gas jet and needle, but as a rule the operator is assisted by a very elaborate semiautomatic machine. In the machine process the operations are as follows: The rounded end of the bulb, where the tip later appears, is suspended over a pointed gas flame, the open neck of the bulb being inserted into a compressed-air pipe. The glass is melted where the flame plays upon it and the pneumatic pressure forces a small hole though the glass at this point. In the meanwhile, a small glass tube held in a revolving holder has been melted at the end which is to be attached to the bulb. The bulb is then placed in a holder so situated that the small hole in the end of the bulb is brought directly under and in contact with the melted end of the tube. The tube is thus welded to the bulb. The majority of the operators employed in this work are women, although a few men are used. Output data from one establishment shows that the average number of bulbs tubulated by each operator per day was 2,450, the maximum number being 3,100. This demands speed and close attention to work, which is difficult to comprehend unless one has seen the process, but will be more fully brought out later.

SEALING IN.—The next step consists in assembling the stem and the tubulated bulb and is known as "sealing in." This process consists of three steps and is done on a semiautomatic machine. First, the bulb is suspended in a revolving holder where the long neck previously described is exposed to the heat of several intense gas flames. The heat completely softens a ring around the glass and the weight of the suspended neck causes it to collapse at this point, thus closing this end of the bulb. Through the small tube at the other end of the bulb air pressure is then introduced into the bulb, either from the operator's lungs or with the aid of a compressed-air pipe. This causes the melted glass to be expanded into a thin bubble which rapidly cools and is rubbed off on a rough surface. This leaves the neck of the bulb open and slightly flared. The bulb, with its neck up, is next put into a holder attached to a revolving platform and the stem with its mounted filament is thrust into it. The platform is then revolved, bringing the bulb under a gas flame which heats the upper edges of both stem and bulb preliminarily and then under a more intense jet which melts them down so that an air-tight weld is formed. The operator then removes the bulb from the holder and, while the fused joint is still warm and soft, inserts a needle-like tool into the opening at the flared end of the stem and straightens it into the desired position exactly in the middle of the lamp. This process of sealing in may be performed either by two operators, the feeder, who inserts the stem into the bulb, and the finisher, who straightens up the "mount," or by one operator, who tends to the entire operation. The feeder need not be particularly skillful, but requires speed and great delicacy in handling the mounted filaments, while the finisher requires accuracy and quick judgment in order to give the stem its proper position inside the bulb. The machines are of such a height that the operators may either stand or sit upon high stools, which bring them into the proper position for their work. The average output per operative per day in one establishment during a six weeks' period, was 2,450, the maximum 3,050. As in tubulating, this means a degree of speed which requires further discussion.

At this point, in some factories, the lamps are given a mercury test to insure that the process of sealing in has been perfectly performed, but, as a rule, the lamps next pass on to the department in which the vacuum is formed within the bulb.

Painting.—This process, which consists in giving the small tubes described a coating of phosphorus, may be performed either at this point or before the tubes are attached to the bulb in the process known as "tubulating." The point at which this process takes place depends upon whether in the process of sealing in the inflating of the glass bubble is done by compressed air or with the mouth. In the former case, the tubes are dipped into a bath of phosphorus suspended in alcohol, while in the latter case the tubes attached to the bulb are painted on their inside surface with a small brush dipped into a similar solution of phosphorus. In either case, the work is done entirely by hand, and its general nature is such that a much more detailed discussion is given at a later point. The operation is one of the least skilled and is usually performed by the younger girls.

Exhausting.—At this time the lamps are entirely ready for exhausting and are first thoroughly heated in order to drive off any possible moisture. The exhausting, in the early stages of the industry, was done with mercury pumps and required more than half an hour to complete, whereas now the vacuum is formed by the use of oil-valve pumps in half a minute, a result which would not be possible without the aid of the phosphorus coating mentioned above. The operation at present is as follows: The bulb is first warmed thoroughly to drive off any moisture that may be present; the small tube attached to the rounded end of the bulb is then inserted into a pipe connected with two sets of air pumps. With the first set the air is partially exhausted, and then the second set is brought in and the exhaustion is carried to a much higher degree. The current is then gradually turned on and the carbon brought to a state of incandescence. At this time there are still some hydrocarbon gases remaining in the bulb, the presence of which is indicated to the operator by a light-blue glow. In order to get rid of these, the phosphorus, which it will be remembered coats the small tube, is heated by a hand lamp and volatilized, in which state it combines with the hydrocarbon gases to form a solid precipitate. As soon as the light in the interior of the lamp is entirely colorless, the tube is melted near its connection with the bulb, the differential pressure due to the vacuum within the tube causing it to collapse and hermetically seal the bulb. This forms the familiar tip on the end of the bulb. In order to protect the operators' eyes from the intense glare of the lamps when they are brought to a state of incandescence, a small screen is in some establishments arranged so that it can be swung back and forth in front of the lighted bulbs. The operators engaged in that process may sit, the majority of them being women. As far as the rate of production is concerned, this is the slowest of the operations, the average daily output in one factory being only 900. This does not, however, mean slow work for the operator, as the large number of operations and the delicacy of the work demand the closest attention on her part.

The lamp, as far as its ability to give light is concerned, is now complete, the remaining operations consisting in giving it a thorough series of tests, and applying to it the metallic base which makes it commercially usable.

Coil testing.—The first of these testing processes is known as coil testing and is a very rapid way of detecting defects in the lamp. The operator brings the lamp to be tested in contact with a metal plate which is connected with an induction coil, at the same time completing the circuit by putting her hand on a pilot lamp attached to the platform before which she works. This may be done either by removing each lamp separately or much more rapidly by placing a tray at a time so that the leading-in wires rest on the plate. If the lamp being tested shows any light or color, it is rejected. The current used in this operation, after it has been transformed by the induction coil is a current of high voltage, and the operator consequently receives a very perceptible shock as it passes through her body, a point which will be given fuller discussion later. Owing to the necessity of being able to detect the least sign of light or color within the bulb, the work is done entirely in darkened booths and is of such a nature that the operators are continually on their feet, as they not only have to stand to perform the work, but they have to move back and forth in order to get the trays of lamps which are to be tested.

Photometering.—All lamps which pass the coil test next go to the photometer testers, who accurately determine the voltage. The photometer used is a type specially fitted for the work and consists, essentially, of a long box at one end of which is a rotating socket in which the lamp to be tested is inserted. At the other end is a standard lamp of known candlepower and between these two lamps is a screen with an oil spot in its center, the image of both sides of which is reflected by two mirrors placed at an angle of 45°. The operation proceeds as follows: A girl known as the "marker" inserts the lamp into the revolving socket, thus lighting the lamp in front of which a semicircular screen swings, in order to protect the eyes of the operator. A second girl, the "reader," by means of a crank, shifts the screen until the oil spot is shown by the reflecting mirrors to be of the same intensity on both sides of the screen. When this point is found, the marker reads from a scale in front of her the voltage of the lamp under test, which is shown by a pointer on the scale. The candlepower and voltage are then marked on the neck of the bulb with a small brush. At present this work is of necessity done in a semidarkened room, but a new type of photometer has recently been introduced which permits the work to be done in the daylight. The work of both the reader and the marker require a great deal of accuracy and close attention to the work.

The speed attained at this very accurate and seemingly complicated operation is perhaps the most remarkable in the entire industry. In one factory during a six-weeks period an average daily production of 4,500 was maintained, and at least one team of girls reached 5,000. When it is remembered that the lamps come to these girls almost without classification, and that the voltage must be read accurately under the penalty of a fine of 10 cents per lamp, the speed and the strain both on eyes and nerves attain great importance.

Sorting.—Up to this time the lamps have been handled in trays, regardless of their shape or voltage. They now pass to a large room where the sorters classify them according to their various features. The work is very simple, the only requirement being accuracy in reading the figures which have previously been marked on them.

Stem labeling (stoppering or stuffing bases).—The lamps are then taken to the operators who insert into the open end of the stem the license tag over which they stuff a woolen wad to keep the cement used in basing from entering the stem.

Basing.—The next operation consists in cementing to the lamp the metallic base by which it is ordinarily held in the electric light fixtures. The operator partially fills the metallic base with cement and pushes it down over the neck of the bulb, thrusting one of the leading-in wires through a small hole in the insulated tip of the base and bending the other wire over the end of the neck, so that it sticks out under the side of the base when it is pushed down over the bulb. The lamp is then inserted in a holder on a slowly revolving platform, where in the course of the revolution it is brought under a series of jets which thoroughly bake and harden the cement which binds the base to the bulb. This work requires no skill and has no special features beyond the exposure of the operator to a rather high temperature, due to the number of gas flames immediately in front of her, and to the unpleasant odors from the heated cement and escaping gas.

Wire cutting.—The copper leading-in wires, which at this time project for more than an inch from the base, are next cut off. This is done with a knife by hand, the fingers of the operators being bound with cloth bandages in order to prevent cuts.

Soldering.—The next process consists in soldering the leading-in wires at the point where they project from the base with a conducting alloy, in order to hold the wires in place and to form a perfect electrical connection when the lamp is placed in the ordinary fixture. The operation is done by hand and consists of simply bringing a strip of solder in contact with a hot tool, and then running a small drop of the solder on the base at the proper point. The work is done altogether by women, who may sit while at work, and requires only speed on the part of the operator.

Cleaning.—At this time the lamp is complete; but in order to prepare it for the market it is first cleaned by dipping the bulb into hot water, or in some of the plants a slightly acidulated solution, or in others a mixture of ammonia and water, and wiping it with pieces of tissue paper. In case the lamp has a spot that is not removed by the solution, it is carefully polished with whiting. The work is done altogether by women and girls.

Outside labeling.—The outside label showing candlepower and voltage is next attached to the lamp. The work is done entirely by hand and consists in wetting the labels on a sponge and pasting them on the neck of the bulb.

Final inspecting.—All lamps are now given a final inspection, in which they are examined for every possible defect. The lamps are first looked over carefully to determine physical defects, such as bad shape, imperfect work, etc., and then lighted up to reveal any electrical defects. The operators engaged in this inspection must have a great deal of experience and judgment in order to prepare them for doing the work properly. The great care that must be exercised in this work, together with the speed at which it is done and the constant flashes of light directly in front of the eyes, renders this occupation particularly trying on the operator, resulting in a very large proportion of requests for transfer to another department.

Packing.—The lamps are now entirely ready for shipment and are carried in trays to the packers. The styles of packing differ considerably for the various types of lamps, but the ordinary method is to inclose them in paper cases and pack them side by side in boxes. As the lamps rest in the trays with the bulb end exposed the packers thrust corrugated-paper covers over them, and then pressing the case thightly around the neck of the bulb put them in position in the boxes. This work is done with remarkable rapidity, the operator packing from 800 to 900 bulbs per hour. The last process before the lamps pass to the consumers consists in nailing up the boxes, which is done by men with the aid of automatic nailing machines.

The processes and operations described above constitute all the essential steps in the manufacture of the complete carbon lamp. It by no means, however, accounts for all of the occupations known to the industry, for after each operation there is an inspection, and in addition various special tests of samples of the work done. Furthermore, there are several special processes to which only lamps specially ordered are subjected, the most important of which are frosting, etching, and sand blasting, full descriptions of which have already been given in connection with the glass industry.

MINIATURE DEPARTMENT.

The work in the miniature department, in which are made the dentists' lamps and very small work of this kind, resembles in its general character that which we have just described in connection with the carbon filament lamp. It differs, however, in the fact that the parts being so minute must of necessity be made almost entirely by hand, and this requires a degree of care and delicacy far beyond that necessary in handling the ordinary carbon filament lamp. The bulbs for the miniatures are made from tubing, for a description of the general nature of which work the reader is referred to a previous section on lamp blowing and vial making, in which a general treatment of the subject is given. Beyond the fact that the delicacy of the work in itself produces a great strain on the eyes and the nerves of the operator, and the fact that the stem to which the bulb is attached in being blown and otherwise formed is at times applied to the lips of two or more operators, which renders very likely the spread of any contagious disease existing, the work presents few special points of interest. The working force of this department is at present comparatively small, but the products are constantly assuming greater importance, and the production is increasing rapidly.

TUNGSTEN DEPARTMENT.

Within the past few years, owing to the introduction of metallic filament lamps, a new and increasingly important department has been added to the industry. The first of these metallic filament lamps to become of commercial importance was the tantalum lamp, which has recently been superseded by the tungsten lamp. Although the fundamental processes in the manufacture of these lamps are the same as those used for the carbon filament lamps, there are a few rather important differences, especially as concerns the operators. The first of these differences is in connection with the "squirting" of the tungsten filament, and lies in the fact that the very fine metallic filament, as it falls from the die through which it is pressed, must be carefully coiled on a sheet of paper by hand, instead of automatically as in the case of the carbon filament. The chief difference, however, lies in the method of mounting the filament within the lamp. In attaching the filament to the leading-in wires it is impossible to make use of carbon paste, the method used being to insert the metallic filament into a small copper tube, where it is securely held by pinching together the sides of the tube, the other end of the tube having been firmly welded to the platinum leading-in wire. The stems upon which the tungsten and tantalum filaments are mounted also differ in that they consist of solid glass cylinders enlarged at the lower ends and at a place a little distance from the upper end to form "hubs." Into these hubs are inserted small wires in the form of spokes with minute hooks on their outer ends. Over these spokes the filament is wound, the total length of the filament being several inches. As will be readily understood, the nature of this work is such that it must of necessity be performed almost entirely by hand, and owing to the small size and fragility of the metallic filaments the work requires much more care and delicacy than in handling the ordinary carbon filaments.

THE RENEWING OF INCANDESCENT LAMPS.

In addition to the manufacture of new lamps there are a number of small establishments and departments attached to the larger factories which are devoted entirely to the work of renewing lamps which have been burned out in the course of service. "Renewing" a lamp requires that the old filament be replaced by a new one, that the discoloration of the interior be removed, and that when necessary a new brass base be put on the lamp. A lamp which is injured in any further degree can not be renewed.

Reaming.—The first operation in making over a burned-out lamp is known as "reaming" (or opening), the result of which is simply to make an opening in the glass in order that the filament may be changed. This opening is made by holding the tip of the lamp in a flame until the glass is sufficiently melted to permit a needle to be inserted. With the aid of this needle an opening about one-fourth of an inch in diameter is made. The operators, who are usually women, sit while at work and in making the opening must partially lean over the burners, of which four concentrated upon a single point are commonly used.

BURNING OUT.—The object of the next process is to remove the discoloration on the inside of the lamp, and is known as "burning out." The operator takes the opened lamps, places them on horizontal knobs over a Bunsen burner, and there leaves them until the external heat has resulted in the disappearance of the discoloration inside the bulb. The operation is exceedingly simple, and the operators may sit during the entire time, but the heat of the gas jets directly in front of the operator makes it very disagreeable, particularly in warm weather.

RAKING.—The next process is known as "raking." The operator here simply inserts a steel needle through the opening made by the "reamer" and breaks the old filament into fragments, which are then shaken out. The work is of the very simplest kind, requiring no skill. The operators sit while at work.

FILLING.—Of equal simplicity is the operation known as "filling." This consists merely in inserting a new filament into the cleaned-out bulb, and so placing it that the loose ends lie at the bottom and the loop at the top of the bulb. The operators, all of whom are women, sit while at work.

CLAMPING.—The aim of the next operation is to fasten the loose ends of the new filament to the platinum leading-in wires at the base of the lamp. The result obtained is the same as that already described in connection with the manufacture of the original lamp, but the method used differs somewhat. The "clamper" dips a fine needle in graphite paste, inserts it through the opening, catches the loose ends of the filament on the paste, and deftly brings it over and pastes it to the end of the platinum wires. The work is not difficult except that it requires some deftness and very good eyes in order to see the filament. To aid in seeing the filament and the leading-in wires, a sheet of white paper is usually placed on the table and the lamp held between this and the eyes while working. The work is done entirely by women who may sit, the product per hour averaging from 50 to 100 lamps, depending on the skill of the operator.

The remaining processes in the renewing of the lamp are exactly similar to those previously described in connection with the manufacture of new carbon filament lamps and are as follows; baking, tubulating, painting, exhausting, and photometer testing. The chief differences between the manufacture of new lamps and the refilling of old lamps, as will be noticed from the description above, is that the latter consists almost entirely of hand processes.

SPECIAL FEATURES OF THE WORK.

Although the foregoing description of processes has given an impression of the conditions under which the work is done as well as of the general relation of the operator to the mechanical operations performed, further and more detailed discussion is necessary to bring out several important features connected with the work, particularly as concerns its effects on the employees. A consideration of the preceding description of processes shows that there are several features affecting the health or comfort of the employees which are common to all or to a large number of the occupations, and at the same time there are several occupations which affect the operators in a way peculiar to themselves. The first classification therefore is into effects which are general in their nature and more or less features of the industry as a whole and effects which are the result either of special occupations or special conditions surrounding an occupation. Further analysis develops the fact that while a number of these features, both general and special, exist in an unusual degree in the electric lamp industry they are by no means peculiar to it, but are encountered in other industries.

The two chief characteristics of the electric-lamp industry, the minuteness of the work and the extreme speed with which the operations are performed, while not peculiar to it, are found to exist in a degree almost without parallel in any other industry. In some industries the speed rate is highly developed by means of machinery and special systems of wage payment; in others the work is even more delicate and requires as great accuracy as the electric-lamp work, but in no other probably are both features developed together to the degree which characterizes this particular industry. Out of this combination of speed and minuteness, linked as they are at times with other undesirable conditions, arise nearly all the evil effects attributable to the industry. In the sections which follow these features are necessarily treated separately, but an attempt is made from time to time to indicate the fact of their coexistence by the use of specific examples.

MINUTENESS.

From the time the various filaments are baked until the "mount" is completed the operators are dealing with materials so delicate and minute that they can be clearly seen only in the best of light and by persons possessing at least normally good sight. This can be very easily appreciated by inspecting an ordinary carbon or tungsten lamp, the filament of which is not clearly visible unless the lamp is held close to the eyes and in a strong light. To handle one such filament at leisure would be neither difficult nor trying; every day the housewife performs an equally delicate operation in threading a very fine cambric needle. If, however, this needle-threading operation were repeated two or three thousand times a day, and particularly if it were done at a piece rate, which urges one to the highest speed in order to increase one's earnings and to secure the higher rate paid for very rapid production, it would soon assume tremendous proportions to the person doing the work. There is perhaps no better illustration of the general nature of these occupations than of fine needle threading repeated at top speed day in and day out. Indeed there is in the tungsten department an occupation which is exactly like it. In this operation the gossamer-like tungsten filament, which can hardly be seen by the untrained eye, must be inserted in a tiny hole punched in the end of a copper wire no thicker than the finest needle, where it is kept in place by pinching the sides of the wire together. This operation is repeated a thousand times a day at the rate of about three every two minutes. Almost everyone has done at some time equally delicate work, so that the effects which operations of this nature must have on the eyes and nerves can best be appreciated by conceiving the repetition of such work through a ten-hour day at a rate approximating that cited above.

Of a similar nature are the majority of the occupations in the carbon-filament department throughout the minature department owing to the very small size of all the parts used in anchoring, hand clamping, and hand wire welding, and in squirting tungsten filaments. The same necessity for the very best sight and the closest attention characterizes nearly all of the innumerable testing occupations and here with the added incentive to strained attention of fines imposed for passing defective lamps or parts. Almost equally injurious in its effects on the eyes is the occupation of tubulating. Here it will be remembered that the operator must devote the closest attention to the accurate welding of the small tube to the bulb, while at the same time she keeps both her hands and feet occupied.

SPEED RATE.

Since the speed at which the employees work is determined largely by the amount of wages received and the methods of payment used, it is necessary to introduce here some matter which would seem to fall more properly under the head of wages, but the question of speed rate in its connection with the effects of the work on the employees is of such importance in itself that a special treatment of this phase is necessary.

As has been pointed out above almost all the operations performed are light, requiring no muscular strain and indeed very little muscular exertion. There is, however, a nervous strain manifesting itself in a feverish concentration on the work, to be seen in most of the establishments and particularly in the larger and more modern plants.

This situation the ultimate results of which will be apparent to all those familiar with the effects produced on girls and young women by undue concentration and feverish eagerness to hurry the assigned task is a result of the attempt to reduce the cost of production of the lamp.

From the time that the first commercially usable incandescent lamp was invented by Edison until the development of the tantalum lamp there was practically no change in the nature of the raw materials, or in their cost, although during the period the cost of the lamps was very greatly reduced. This reduction has been possible only because of the increased rapidity with which the lamps could be produced and the consequent decrease in the labor cost of production. A part of this increase in the speed of production, as has been pointed out above, is due to the simplification of processes and the introduction of machines which relieve the operator of some parts of the work, but by far the greater part of the present speed is due to the increase in the working speed of the operators. The truth of this assertion is best shown by the fact that in 1890, from information furnished by a bulletin of the New Jersey Bureau of Statistics of Labor and Industries, the average hourly output of carbons mounted by hand was 90, whereas now, on identically the same work done by the very same methods, the average hourly production has risen to 125, an increase of approximately 40 per cent.

This very vital increase in the speed at which the operators work has been the result of a number of very definitely planned causes, the nature of which requires some explanation. It is the natural policy of manufacturers to strive to increase the efficiency of their employees, not only because of the tangible saving in the number of machines, size of plant, and cost of supervision gained by a decrease in the size of the working force, but also in part because of the intangible results in obtaining a generally better and more reliable force, as those of the lowest grade of ability are gradually and necessarily eliminated by the "speeding-up" process. In few industries, however, has there been such unremitting attention to this feature or such highly developed methods devised for securing this result as in the electric lamp industry, due, it would seem, to the very large proportion of the total cost formed by wages.

These methods are four in number: First, the establishment of a minimum output, below which the employees dare not fall for fear of discharge. At the time of this investigation a tabulation of the output of all employees for a period of six weeks had just been completed in one establishment as a basis on which to establish minimum standards in all occupations. The fact that this system is not in general use, however, seems to indicate that it is of no great efficacy. Second, the payment of higher piece rates for increased production.

In one of the factories, for example, the rates paid for "gem" mounting are as follows:

	Per 1,000.
Output under 900 per day	$1.03
Output 900 to 1,000 per day	1.07
Output 1,000 to 1,100 per day	1.12
Output 1,100 and over per day	1.17

In the case of the highest net output, 1,200, the difference to the operator between being paid at the lowest rate and highest is the difference between $1.24 and $1.40, or 16 cents per day—that is, more than 10 per cent of the total wages. Numerous instances of similar devices were encountered, and from the evidence of both managers and employees it is highly successful in securing greatly increased outputs. Third, a method very similar to that just cited, that of giving bonuses for all production above a certain standard. This method is likewise widely used. The fourth and last of these methods is perhaps the most interesting. When an entirely new process is introduced or there is some one occupation the output of which has fallen below normal, one of the most skilled and willing workers is made the "leader" of a group. She acts as a pacemaker, and is urged to her best efforts to increase both her own production and that of her group by being paid 5 per cent more than the average of the entire group. In such a case the use of bonuses or graded piece rates is ordinarily added in order to urge the individual workers to their highest speed. After this system has been in vogue for a short time and the girls have become accustomed to working at their maximum efficiency, the "leader" is removed, the bonuses discarded, and according to the testimony of many of the girls, the piece rate is cut to such a point that the average wage level is as it was when the employees were producing much less. By this means the production is said in several cases to have been doubled within a short time.

Beside these specific methods of increasing the output in the different occupations, the same results are secured by the regulation of piece rates. It is difficult to say just how far this policy is characteristic of the industry, or to what degree it is practiced in the separate establishments, but the attitude is strikingly illustrated in the statement of a superintendent, who, when asked how he was able to maintain rapid production without the use of premiums, replied: "We keep the piece rate so low that they have to keep right at it in order to make a living."

These rapid and forced increases in the quantity of goods produced, however, necessarily react on the quality, by increasing the proportion of imperfect products. To offset this tendency, a set of fines is introduced as a penalty for imperfect work or breakage, bonuses are given for the largest percentage of perfect ware, or in some cases a combination of the two methods is used. In one of the largest establishments, for example, the average production and average breakage for each occupation, as well as each individual, are calculated every day. In those occupations in which the tendency to breakage or imperfect work is greatest, such as sealing-in, those having good production above the average of the occupation receive a bonus of one-third the full rates for all they have saved above the average. Those having a loss greater than the average are fined, but in a progressive ratio greater than the ratio of loss, and if employees fall constantly or very far below the average, they are discharged. In other cases special fines are imposed, of the nature and amount of which it was found that the majority of the employees were ignorant. These fines at times become very onerous, and in at least one case there was a strike against them. In 1908 a system of fines was imposed on the "hub makers" in one of the establishments, which resulted in the girls losing an average of about 50 cents per week in fines, which represented approximately 7 per cent of their total wages. After standing the deductions for several weeks, the girls refused to work until the fines were abolished, and succeeded, after a little delay, in gaining their point.

One of the establishments, that in which the general level of piece rates is highest, however, is peculiar in that its policy is not to force the speed of production, but if anything to restrict it. In pursuance of this policy the piece workers, who are required to remain in the factory until closing time, are given other work after they have exhausted their regular supply, and are paid for this extra work either on time rates or at 20 per cent less than the regular piece rates for the same class of work. This scheme has been adopted to prevent too fast work by supplying the additional work at a lower rate, as well as to prevent too slow work that some of the employees tend to do when they know that the supply is limited and that they might as well "go slow" and make it last through full time. The reduction of 20 per cent in the rates for the additional work is justified on the ground that the girls, when given work for an hour or two to which they are unaccustomed, are not as efficient as the regular workers and waste a great deal of material.

In order to convey some idea of the speed at which the work in the various occupations and in the different factories is done, a table has been prepared showing the average and maximum output of female employees of 16 years and over. Unfortunately, the data obtainable are not as complete as might be wished. The statistics presented are, however, carefully selected from a large mass of similar material and verified as far as possible by checking them against the results of the wage tabulations. They are, therefore, believed to be, without exception, accurate, but in order to avoid any misapprehension it may be stated that the accuracy and completeness of the data are entirely beyond question save for establishments A and B. In order to give an impression of the relation between speed rate and piece rate, the columns showing piece rates paid in the different establishments are also given.

PIECE RATES AND AVERAGE AND MAXIMUM DAILY OUTPUT OF FEMALE

Occupation.	Piece rate per 1,000 16-candle power lamps.				
	A.	B.	C.	D.	E.
Drum winding, large	[a]$1.25				
Treating	1.65				$2.50
Spot testing	.35				
Wire welding, hand	.20				.25
Stem making:					
Machine feeder			$0.45	$0.80	
Machine finisher			.45	.80	
Hand flanger					.35
Hand finisher					.80
Mounting, hand			.93	1.90	1.20
Anchoring			.59		
Bulb unwrapping			.12		
Tubulating		$0.60	.50	.80	.80
Sealing in:					
Feeder		.45	.49	.85	.80
Finisher					
Painting:					
New method	.028		.05		
Old method		.30			
Exhausting		1.75	1.40	1.80	2.00
Coil testing	.065		.06		
Photometer testing:					
Reader			.27		
Marker			.26		
Stem labeling	.24	.24	.23		
Basing	.80	.90	.65	.90	.80
Wire cutting	.16		.13		.80
Soldering	.40	.40	.43	.55	
Washing			.40	.45	.50
Outside labeling			.14		
Final inspecting			.32		
Packing			.17		

[a] Per 100 cylinders.

MAINTENANCE OF UNIFORM POSTURE.

As a corrollary of the two characteristics of the work pointed out above; that is, its minuteness and the speed with which it is performed, an almost equally undesirable condition is found in the necessity for the long continued maintenance of a uniform posture on the part of the operators. With most of the work, and particularly with those operations which require very clear and close vision, there is only one position in which it is possible to do the work to the best advantage as concerns either quality or speed. And, as a rule, the posture which must be assumed is one in which the employee is stooped over a bench or table with the work only a few

The final result of these various methods of speeding up has been to secure a rapidity and intensity of work which are remarkable. When the minuteness of the work is considered at the same time with the speed rate, the result is overstrained nerves and eyes, and such a combination is easily understood, particularly where the persons are women, the majority of whom are under 20 years of age.

EMPLOYEES 16 YEARS AND OVER IN FIVE PRINCIPAL ESTABLISHMENTS.

Output of 16-candle power lamps per 10-hour day of female employees 16 years and over.									
Average.					Maximum.				
A.	B.	C.	D.	E.	A.	B.	C.	D.	E.
b 94	....	....	....	....	b 124	....	....	....	....
772	....	....	....	....	800	....	....	....	800
3,896	....	....	....	....	4,820	....	....	....	....
5,000	....	....	....	....	....	....	....	....	7,500
....	....	2,600	1,990	....	....	....	3,500	2,300	....
....	....	2,600	1,990	....	....	....	3,500	2,300	....
....	....	....	....	....	....	....	....	....	5,000
....	....	....	....	....	....	....	....	....	2,200
....	....	1,250	770	....	....	....	1,500	1,000	1,000
....	....	2,100	....	....	....	....	2,400	....	....
....	....	8,000	....	....	....	....	8,820	....	....
....	2,770	2,450	2,270	....	....	3,400	3,100	2,630	2,500
....	3,060	2,450	1,650	....	....	3,880	3,050	2,010	2,500
37,830	....	25,000	....	....	39,700	....	30,000	....	....
....	3,320	....	....	....	....	4,040	....	....	....
....	1,010	900	740	....	....	1,300	1,100	990	1,000
20,000	....	20,000	....	....	30,000	....	....	....	....
....	....	4,500	....	....	....	....	5,000	....	....
....	....	4,500	....	....	....	....	5,000	....	....
5,140	6.000	4,370	....	....	5,950	6,000	4,750	....	....
2.280	1,980	2,140	1,950	....	2,280	2,200	2,300	1,960	2,500
6,560	....	9,000	....	....	....	....	10,000	....	3,000
3,030	3,220	2,050	2,300	....	3,060	4,230	3,220	2,900	
....	....	4,250	3,710	....	....	....	5,000	4,110	3,090
....	....	6,000	....	....	....	....	8,000	....	....
....	....	4,200	....	....	....	....	4.400	....	....
....	....	5,120	....	....	....	....	7,000	....	....

b Cylinders.

inches away from her eyes. Theoretically, almost all the employees have the choice of sitting or standing, except in occupations like photometer testing, where the eyes must be kept on a line with the instrument, and as a rule seats are provided in all the establishments wherever it is possible to utilize them. But, owing to the fact that earnings are so directly connected with both the quantity and the quality of the work produced, the employees must of necessity maintain the posture in which both these requirements can be best obtained.

In addition to the three features, minuteness, speed, and maintenance of uniform posture, which characterize the industry as a whole, there are numerous special conditions connected with particular occupations or departments which are worthy of notice.

HEAT AND IRRITATING FUMES.

In all the occupations in which gas flames are required to melt the glass of the bulb or stem, or to prepare the other materials for use, the operators are exposed to an unpleasant degree of heat and to the disagreeable and more or less injurious fumes of escaping gas. These conditions are accentuated in the electric-lamp industry, as ventilation from open windows is prohibited by the fact that a direct draft, which would carry away the heat and fumes, would cause the gas jets to flare, which would not only spoil much material but would otherwise interfere seriously with the work. The occupations in which these conditions are most noticeable are hand wire welding, stem making, sealing in, and basing. In hand wire welding, for example, the operator must lean over a high-pressure gas jet, with her head only a little way above the flame. Welding the small copper wire to the tiny platinum point requires that the work be held very close to the eyes at the same time that the ends of the two wires are brought together in the flame to form the weld. The heat and gases rising from the burners are at all times disagreeable, and during the hot summer months they become exceedingly unpleasant and exhausting. There is always a certain amount of waste and unburned gas which escapes from the jets, and which is not without injurious effect. Just what are the effects upon the girl operator of breathing this hot, vitiated air for ten hours is a matter which would require the investigation of experts, but experience of similar conditions in other lines of work leads to the conclusion that it must be decidedly injurious, primarily, to the lungs.

In some of the occupations, such as the making of paste for mounting filaments, soldering, basing, and removing bases, disagreeable and nauseating odors from the raw materials used are added to the fumes from the gas jets. The composition used in attaching the bases, when baked, gives off a peculiarly sickening odor, which permeates the whole of the large room in which this work is done.

In addition to the conditions described above, which are more or less general in their nature and by no means peculiar to the electric-lamp industry, there are three occupations which are of such a nature as to require more extended and particular treatment—sealing in, phosphorus painting, and coil testing. These will be treated in order.

SEALING IN.

In sealing in it will be remembered that the excess glass of the neck of the bulb is cut off by heating the glass until the neck of the bulb collapses, and then inflating this hot, soft glass into a thin-walled bubble by blowing through the small tube at the other end of the bulb. When this bubble is inflated, the thin walls rapidly become cold and quite brittle, until finally the bubble is exploded by the air pressure, sometimes with a loud report, and a shower of fine, almost invisible particles of glass is thrown into the air. This glass dust, identical with the "blow over" in a druggist bottle furnace room, fills the air around the sealing-in machine, settles on the girl's hair and clothing and is certainly inhaled in considerable quantities where the bubble is inflated by the mouth of the operator. The medical statistics showing the high degree in which dusty trades, particularly where the dust is mineral as in this case, produce phthisis and other diseases of the lungs and throat, are too well known to require restatement here.(a) It is sufficient to point out that this occupation, where the inflation of the bubble is done by the mouth, is in this respect dangerous and unhealthful.

Fortunately, however, this danger can be, and is in the more modern plants, obviated to a considerable degree by the use of compressed-air pipes to inflate the glass. In this case the bubble is exploded at least 2 feet below the face of the operator, and the greater part of the glass particles settle to the floor and are much less liable to be breathed in by the operator. The danger, it seems, could be entirely removed by having the bubble exploded under a partially closed hood with an exhaust to carry off the glass particles.

PHOSPHORUS PAINTING.

In the large establishments the small tubes through which the bulb is finally exhausted are given the necessary phosphorus coating by being dipped, a handful at a time, into a bath of phosphorus suspended in alcohol. The fumes of the alcohol are unpleasant and irritating, but the chief danger involved in the occupation is due to the phosphorus used. There are two distinct varieties of phosphorus, commonly known as the "white" (or yellow) and the "red." The white phosphorus is exceedingly dangerous, and its effects are well known in the disease of the bones known as phosphorus necrosis, or "phossy jaw;" pure red phosphorus, on the other hand, is entirely harmless unless it gets into the blood. Commercial "red phosphorus," however, as was demonstrated by an extensive series of tests recently made at Harvard University, is seldom pure, and frequently contains as much as one-half of 1 per cent of the white phosphorus. In the course of these experiments it was also found that the existence of one-sixteenth of 1 per cent of the white was enough to produce harmful effects. The analysis of a small specimen of the phosphorus used at one of the electric-lamp establishments showed the existence of white phosphorus, but the specimen was too small to permit the proportion to be determined quantitatively. A

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[a] See Thomas Oliver, Dangerous Trades, London, 1902; and Diseases of Occupation, New York, 1908.

number of girls employed as tube painters who were interviewed complained of headaches and dizziness, but it was not possible to determine whether these effects were to be attributed to the phosphorus or to the alcohol fumes.

Very serious danger, however, exists, particularly as the girls in the course of their work have their hands and aprons smeared with the phosphorus paste, and being ignorant of their danger, they take no precautions whatever to prevent its entering the system. The exhausters, likewise, who vaporize the paste would seem to be exposed to the same danger though not to the same degree. The fact that serious cases of phosphorus poisoning have not come to notice in connection with the occupation is perhaps due to the fact that it is one of the worst paid and most disagreeable tasks in the industry and the girls always manage to get transferred from it within a short time.

COIL TESTING.

This operation, it will be recalled, consists in the operator's completing an electrical circuit by holding her hand on one electric bulb, known as the "pilot," while with the other the lamp to be tested is brought into contact with a metal plate, which forms the other pole of the circuit. Although the bulbs act as insulators, the current used is of such high tension that a distinct shock is felt by the operator every time a lamp is tested. As the speed at which this work is done is tremendous (20,000 per day (33 per minute) being the average output per employee in one establishment), there is, with the exception of the short intervals during which the girl is running back and forth with the trays of bulbs, an almost constant electric current passing through her body (powerful enough to give the person unused to it a distinct shock). Several girls who were questioned stated that after a short time in the occupation they ceased to notice the electric current as it passed through their bodies, and the sensation of shock, which was at first somewhat severe, gradually passed away. The time allotted to the study of this industry, however, did not permit a proper investigation of the ultimate effects of this feature of the occupation, but it appears that a thorough investigation by competent physicians should be made to determine whether the constant exposure of the body to a high-tension current of this nature is injurious or whether the nervous system is capable of adapting itself to such abnormal conditions.

There are, however, two other features of the occupation which should be taken into consideration in making such a study. First, the nature of the work requires that it be done in a thoroughly darkened room or booth in order that the faintest glow of light, indicating an imperfection in the lamp, may be perceived. This in itself may account for the fact that the girls employed in this occupation complained of trouble with their eyes, which might easily result from the constant changes from bright light to utter darkness, as the girls hurry back and forth from the brightly lighted general workroom to the darkened, black-walled booth, and the constant strain of the eyes necessary to see that no lamp showing the least color is allowed to pass unnoticed. Second, the work, as has been pointed out above, is done at tremendous speed, owing to the low piece rate paid (6 to 10 cents per 1,000), and the girls rush back and forth, in and out of the booths, to get the untested lamps and put away those which have been tested. So eager are the girls to "get out a big day's work" that they keep up the high pace nearly all day, slackening up a little just before noon, and later in the afternoon. This speed, with the high nervous tension which it denotes, is of itself sufficient to account for the extreme nervousness of the girls who do this work, without taking into consideration any possible effects due to the electric current.

COMPOSITION OF THE LABOR FORCE.

Before proceeding to the subject of hours of labor and wages, some discussion of the general make-up of the labor force as regards sex, age, and general race classification is necessary. Such a discussion seems especially profitable in this case because of the general nature of the industry and the location of the establishments investigated for this report. With the exception of the three smallest plants the total number of whose employees is relatively so small as to be negligible, these establishments are situated either in towns of over 10,000 inhabitants, or, as with the four larger establishments which have over 90 per cent of the total employees, in cities of more than 50,000 inhabitants. Their location therefore puts the managers in a position to choose for their working force the persons whom experience has proved most suitable and economical, and in the larger and more thoroughly organized factories it is certain that careful discrimination based on experience is exercised in hiring employees. Furthermore, the numerous occupations which differ so largely in their general nature permits such a distribution of the employees that they shall work to the best advantage, at least as far as securing the maximum output is concerned. It may be assumed, therefore, that the general class of persons found in the industry, as well as their distribution in the various occupations or groups of occupations, is largely the result not of mere chance but of the fact that, viewing the matter entirely from the point of view of economy, they have been found by experience to be best suited to the industry and to the work which they perform.

SEX OF EMPLOYEES.

Examining the labor force, first, from the standpoint of sex, we find, as was pointed out in the first part of this chapter, that this is in a striking way a woman's industry. The extent to which this is true is not brought out in the table showing all employees (p. 460), where the proportion of male employees is shown to be approximately 20 per cent, for by far the larger number of these men are employed not in work comparable with that of the women but in occupations such as stoking, freight handling, dynamo tending, and general labor, which contribute only indirectly to the manufacture of the lamps. The real situation in the departments concerned with the lamp manufacture proper is much more accurately shown in the following table. These figures are not quite accurate on account of the difficulty experienced in securing returns from the men, but they are sufficiently exact to show the relative unimportance of the man in the manufacture of incandescent lamps.

NUMBER AND PER CENT OF MALE AND FEMALE EMPLOYEES IN INCANDESCENT ELECTRIC LAMP ESTABLISHMENTS IN OCCUPATIONS IN WHICH WOMEN ARE EMPLOYED, BY AGE GROUPS.

Sex and age.	Number.	Per cent.
MALES.		
16 years and over	83	2.9
Under 16 years	10	.3
FEMALES.		
16 years and over	2,689	94.4
Under 16 years	67	2.4
Total	2,849	100.0

As such a large proportion of the force employed directly in the manufacture of incandescent lamps consists of women over 16 years of age, the more detailed discussion of the distribution of the labor force will be concerned entirely with that class of employees, except for one or two cases, where the girls under 16 years are considered in order to throw light on the situation as concerns the older women.

AGE AND CONJUGAL CONDITION OF EMPLOYEES.

In the following tables are shown the distribution by age of the female employees in each separate establishment and also the respective numbers of married and single females at each age for all eight establishments:

FEMALE EMPLOYEES IN EACH ESTABLISHMENT, BY AGE, AND AGGREGATE NUMBER AND PER CENT AT EACH AGE.

Age.	Female employees in each establishment.								Total female employees.	
	A.	B.	C.	D.	E.	F.	G.	H.	Number.	Per cent.
Under 15 years	2	10	......	......	......	2	......	......	14	0.5
15 years	27	22	2	1	......	1	......	......	53	1.9
Total under 16 years	29	32	2	1	......	3	......	......	67	2.4
16 years	174	44	28	12	7	3	2	4	274	9.9
17 years	246	42	56	14	9	3	4	......	374	13.6
18 years	240	46	40	15	3	2	3	2	351	12.7
19 years	204	40	50	13	5	2	6	1	321	11.6
20 years	166	52	39	15	5	......	3	1	281	10.2
21 years	111	30	20	3	9	1	2	2	178	6.5
22 years	111	9	25	3	3	......	......	......	151	5.5
23 years	107	4	21	1	5	......	......	......	138	5.0
24 years	60	3	8	1	2	......	......	......	74	2.7
25 to 34 years	240	10	35	2	5	2	......	2	296	10.7
35 to 44 years	42	1	6	......	......	......	......	......	49	1.8
45 years and over	9	......	1	......	......	......	......	......	10	.4
Others reported as 21 years and over	1	136	......	31	......	16	8	......	192	7.0
Total 16 years and over	1,711	417	329	110	53	29	28	12	2,689	97.6
Grand total	1,740	449	331	111	53	32	28	12	2,756	100.0

NUMBER AND PER CENT OF FEMALE EMPLOYEES IN INCANDESCENT ELECTRIC LAMP ESTABLISHMENTS, BY AGE AND CONJUGAL CONDITION.

Age.	Single.	Married.	Widowed, etc.	Total.	Per cent of each conjugal condition.		
					Single.	Married.	Widowed, etc.
Under 15 years	14	....	....	14	100.0	....	....
15 years	53	....	....	53	100.0	....	....
16 years	274	....	....	274	100.0	....	....
17 years	373	1	....	374	99.7	0.3	....
18 years	346	5	....	351	98.6	1.4	....
19 years	315	5	1	321	98.1	1.6	0.3
20 years	275	6	....	281	97.9	2.1	....
21 years	169	8	1	178	94.9	4.5	.6
22 years	145	6	....	151	96.1	3.9	....
23 years	126	9	3	138	91.2	6.6	2.2
24 years	63	6	5	74	85.1	8.1	6.8
25 to 29 years	170	39	17	226	75.2	17.3	7.5
30 to 34 years	36	19	15	70	51.4	27.2	21.4
35 to 44 years	13	13	23	49	26.5	26.5	47.0
45 to 54 years	2	4	4	10	20.0	40.0	40.0
55 to 64 years	....	....	....	....	....	....	....
65 years and over	....	....	....	....	....	....	....
Others reported as 21 years and over.	161	21	10	192	83.8	11.0	5.2
Total	2,535	142	79	2,756	92.0	5.1	2.9

PER CENT OF FEMALE EMPLOYEES OF EACH SPECIFIED AGE IN INCANDESCENT ELECTRIC LAMP ESTABLISHMENTS, BY CONJUGAL CONDITION.

Age.	Per cent in each age group.			
	Single.	Married.	Widowed, etc.	Total.
Under 15 years	0.6			0.5
15 years	2.1			1.9
16 years	10.8			9.9
17 years	14.7	0.7		13.6
18 years	13.6	3.5		12.7
19 years	12.4	3.5	1.3	11.7
20 years	10.8	4.2		10.2
21 years	6.7	5.6	1.3	6.5
22 years	5.7	4.2		5.5
23 years	5.0	6.4	3.8	5.0
24 years	2.5	4.2	6.3	2.7
25 to 29 years	6.7	27.5	21.5	8.2
30 to 34 years	1.4	13.4	19.0	2.5
35 to 44 years	.5	9.2	29.1	1.8
45 to 54 years	.1	2.8	5.1	.4
55 to 64 years				
65 years and over				
Others reported as 21 years and over	6.4	14.8	12.6	6.9
Total	100.0	100.0	100.0	100.0

Taking up first the question of age distribution, it is seen that 58 per cent of the employees are between the ages of 16 and 20, the largest number being 17 years of age. This number, however, is not disproportionately large, as there is only a gradual decrease in numbers up to the age of 20, after which the ratio of decrease is somewhat larger, due chiefly to marriage, but partly to change of occupation, sickness, or death. Very few enter the industry under 16 years of age, save in one establishment. By far the greatest number enter the industry at 16, except in the case of one establishment, where the number entering at 17 is equally large. In all the establishments a considerable number are taken on at 17; but the figures here presented and the statements of some of the superintendents show that relatively few enter the industry after this age. When the applicant is over 21 her chances of employment are small except in a few of the lower-grade occupations. As the industry is so largely in the hands of young women, the proportion of married, widowed, or divorced is very small, the proportion of all those over 16 being 8 per cent. The proportion varies very little between the various establishments, but is slightly larger in the larger establishments than in the smaller. The proportions in the age groups above 20 are approximately the same as those for the entire industrial field.

AGE AND RACE OF EMPLOYEES.

The general racial classification of the female employees is shown in the table following

It will be seen that the force is almost evenly divided between American white and native-born of foreign parents, with foreign-born persons in considerably fewer numbers. Of the native-born the English, Germans, and Irish form such a large proportion of the total that the other races are almost negligible. With the foreign-born, however, the distribution is much more equal, and while the older types of immigrant, the English, the Germans, and the Irish, still predominate the Italians and Slavs are present in large enough numbers to become of consequence. As the two largest establishments are so located that they can command almost any type of labor that they choose, the relatively small numbers of Italians, Slavs, and the other more recent immigrant types must be considered as having some significance.

In the case of the girls under 16 years, the number is so small that the relative proportions can not be considered as having any bearing on the probable future composition of the labor force.

NUMBER AND PER CENT OF FEMALE EMPLOYEES IN INCANDESCENT ELECTRIC-LAMP ESTABLISHMENTS, BY NATIVITY AND RACE.

Nativity and race.	Number.			Per cent.		
	Under 16 years.	16 years and over.	Total.	Under 16 years.	16 years and over.	Total.
Native born of native parents	15	942	957	22.4	35.0	34.7
Native born of foreign parents:						
English	8	134	142	11.9	5.0	5.1
French	2	33	35	3.0	1.2	1.3
German	10	456	466	14.9	17.0	16.9
Hebrew		32	32		1.2	1.1
Irish	14	312	326	20.9	11.6	11.8
Italian	1	24	25	1.5	.9	.9
Slav	1	5	6	1.5	.2	.2
Other	5	74	79	7.5	2.8	2.9
Total	41	1,070	1,111	61.2	39.8	40.3
Foreign born:						
English	3	149	152	4.5	5.5	5.5
French	1	27	28	1.5	1.0	1.0
German		105	105		3.9	3.8
Hebrew		87	87		3.2	3.2
Irish	1	86	87	1.5	3.2	3.2
Italian		24	24		.9	.9
Slav		71	71		2.6	2.6
Other	6	128	134	8.9	4.8	4.9
Total	11	677	688	16.4	25.2	25.0
Grand total	67	2,689	2,756	100.0	100.0	100.0

The distribution shown above, as representative of the industry, varies widely, however, between the different establishments, as shown below:

FEMALE EMPLOYEES 16 YEARS OF AGE AND OVER IN EACH OF FOUR PRINCIPAL ESTABLISHMENTS AND IN THE COMBINED 8 ESTABLISHMENTS, BY NATIVITY.

Establishment.	Number of female employees 16 years and over.	Per cent of each nativity.		
		Native born of native parents.	Native born of foreign parents.	Foreign born.
A	1,711	27.7	46.2	26.1
B	417	22.8	27.6	49.6
C	329	64.2	34.0	1.8
D	110	74.5	20.0	5.5
Total, 8 establishments	2,689	35.0	39.8	25.2

The variations shown above, which are, it will be noted, chiefly in the relative proportions of American white and foreign born rather than in that of the native born of foreign parents, have no relation to the size of the plant, but are due altogether to their locations. The two larger establishments, as has been pointed out, are in cities of such size that they tend to draw a large number of foreign-born persons, while the other two establishments are situated the one in a town of about 10,000 inhabitants, the other in a city the population of which is still almost entirely American born.

Taking up, now, more specifically the question of nativity and age, as shown in the following table, some interesting points are brought out which were not evident in the earlier discussion.

An inspection of this table shows that although there is little difference between the American whites and the native born of foreign parents there is a wide divergence in the case of the foreign born. Thus, while in the age group, 21 years and over, 51.1 per cent of the foreign born appear as against approximately 37 per cent each of the American whites and the native born; in the age group, 16 and 17 years, practically the reverse is true, only 17.9 per cent of the foreign born as compared with 24.7 per cent of the American white and 27.4 per cent of the native born.

NUMBER AND PER CENT IN SPECIFIED AGE GROUPS OF FEMALE EMPLOYEES, 16 YEARS OF AGE AND OVER, IN INCANDESCENT ELECTRIC-LAMP ESTABLISHMENTS, BY NATIVITY.

Nativity.	Number in each age group.				Per cent in each age group.			
	16 and 17 years.	18 to 20 years.	21 years and over.	Total.	16 and 17 years.	18 to 20 years.	21 years and over.	Total.
Native born of native parents	233	363	346	942	24.7	38.6	36.7	100.0
Native born of foreign parents	293	380	397	1,070	27.4	35.5	37.1	100.0
Foreign born	121	210	346	677	17.9	31.0	51.1	100.0
Total	647	953	1,089	2,689	24.1	35.4	40.5	100.0

HOURS OF LABOR.

As the facts regarding the hours of labor and earnings can be most clearly represented in the form of tabulated statistics, in the section which follows comment on the tables will be restricted entirely to those points in regard to which explanation seems necessary or to point out relations between different sets of figures which might be overlooked without detailed study. The data are directly from the pay rolls of the establishments investigated.

The general working time in the industry, as will be seen in the table following, is ten hours per day from Monday to Friday and five hours on Saturday. As the industry is not seasonal in character and maintains about the same working force the year round, with a slight decrease during the summer months, these hours are not very often exceeded. The exceptions to this occur usually during the fall, when the demand for specialties for holidays and exhibitions is largest, and in one of the establishments in which a daily task is set in the sense that all the departments are expected to finish the work that is passed on to them by the previous operations. As the workers are required to remain until this work is finished, occasional overtime on the part of several of the departments is thus required.

Night work is seldom done in any of the plants visited and whenever it occurs is in the nature of overtime work during a rush. To provide for this, the larger establishments keep a force of men who can be transferred to the night shift when occasion arises, their places on the day shift being filled by girls.

NUMBER OF ESTABLISHMENTS AND NUMBER OF EMPLOYEES, BY SEX, AND HOURS PER DAY AND WEEK.

Hours per—			Employees 16 years and over.				Employees under 16 years.					
Day.		Week.	Males.		Females.		Males.		Females.		Total.	
Monday to Friday.	Saturday.		Establishments.	Number.	Establishments.	Number.	Establishments.	Number.	Establishments.	Number.	Establishments.	Number.
9½	5	52½	1	9	1	29	....	......	1	3	1	3
9	9	54	1	33	1	120	1	3	1	2	1	5
10	5	55	4	724	4	2,689	2	6	2	67	3	73
9¾	9¼	58	1	9	1	29	1	1	....	......	1	1
10	10	60	1	40	1	368	1	2	....	......	1	2

PER CENT OF ADULT FEMALES AND CHILDREN WORKING SPECIFIED NUMBER OF HOURS PER WEEK IN INCANDESCENT ELECTRIC-LAMP ESTABLISHMENTS.

Hours per—			Per cent of females 16 years and over.	Per cent of employees under 16 years.		
Day.		Week.		Males.	Females.	Total.
Monday to Friday.	Saturday.					
9½	5	52½	0.9	....	4.2	3.6
9	9	54	3.7	25.0	2.8	5.9
10	5	55	83.2	50.0	93.0	86.9
9¾	9¼	58	.9	8.3	....	1.2
10	10	60	11.3	16.7	....	2.4

EARNINGS OF EMPLOYEES.

The general level of wages in the electric-lamp industry is, for the women at least, relatively high. The average earnings per hour of all women over 16 years is 13.71 cents, which, assuming a 10-hour day and a 55-hour week as a rule for the industry, means approximately $1.35 per day, or $7.50 per week as the average wage. There is, however, a wide variation between the earnings in the various establishments, as shown in the following table:

AVERAGE EARNINGS PER HOUR AND PER FULL WEEK OF 55 HOURS FOR ALL FEMALES 16 YEARS OF AGE AND OVER IN INCANDESCENT ELECTRIC LAMP ESTABLISHMENTS, BY NATIVITY.

Establishment.	Native born of native parents.		Native born of foreign parents.		Foreign born.		Total.		
	Employees.	Average earnings per hour.	Employees.	Average earnings per hour.	Employees.	Average earnings per hour.	Employees.	Average earnings per hour.	Average earnings per week.
A	473	$0.1398	791	$0.1381	447	$0.1398	1,711	$0.1390	$7.65
B	95	.1469	115	.1443	207	.1457	417	.1456	8.00
C	211	.1176	112	.1159	6	.1252	329	.1171	7.05
D	82	.1401	22	.1384	6	.1274	110	.1390	7.50
E	34	.1279	14	.1492	5	.1467	53	.1353	7.45
F	17	.1600	10	.1543	2	.1693	29	.1586	8.35
G	19	.1115	6	.1198	3	.1630	28	.1189	6.90
H	11	.1072	....	....	1	.1234	12	.1084	5.95
Total	942	.1332	1,070	.1360	677	.1419	2,689	.1371	7.60

The data with reference to local conditions necessary to explain the differences existing between the average wages in the various establishments are lacking. The differences are not to be explained by the relative piece rates paid, or by the size of the town, or by the general composition of the labor force. The two establishments in which the wage level is lowest are situated, the one in a city of over 50,000, the other in a small town; while those two in which the level is highest are likewise one in a large city, the other in a town.

EARNINGS, BY RACE.

It should be noted in studying the preceding table that although in the total the average hourly earnings of the foreign born are higher than those of the American white, this is not due to a greater earning capacity on the part of the former, but to the fact that the foreign-born are so largely localized in establishments A and B in which the wage level is unusually high. Furthermore, in the only two establishments in which the number of individuals is sufficient to allow of a comparison (establishments A and B) the American white makes the same average hourly earnings as the foreign born in one establishment and make greater average hourly earnings in the other. The foreign born, then, being older (see table, p. 492), and accordingly more experienced, it probably follows that, given the same amount of experience, American whites have a greater earning capacity.

EARNINGS, BY SEX.

As the same piece rates are paid men and women for the same work, this industry would be a most favorable opportunity for a study of the relative efficiency of the sexes if it were not that the number of men employed in the same occupations with women is small, and that the men are generally in the higher paid occupations. There are only three occupations in which comparison in this matter can be justly made. This comparison is made in the following table:

AVERAGE EARNINGS, PER HOUR OF MEN AND WOMEN IN THREE OCCUPATIONS IN INCANDESCENT ELECTRIC LAMP ESTABLISHMENTS COMPARED.

Occupation.	Men.		Women.	
	Number.	Average earnings per hour.	Number.	Average earnings per hour.
Sealing-in	12	$0.1791	90	$0.1456
Exhausting	22	.1671	87	.1541
Tubulating	3	.1550	51	.1681

Although the piece rates paid were the same for both sexes, comparison is somewhat unsatisfactory because of the limited number available. In the two occupations reporting the greatest number of males, a slight difference in favor of the males is evidenced. In the occupation of tubulating, on the other hand, the average hourly earnings of the males is slightly lower than those of the females, being $0.1550 as against $0.1681. This latter fact is not to be accounted for on the ground of a lower age on the part of the males, one being 19 and each of the other two being 23 years of age.

EARNINGS, BY AGE.

The close relation shown in a previous section to exist between age and earnings is even more strikingly shown in the tables which follow.

Moreover, in the statistics presented here the decline in wage which occurs after the age of 25 may be seen. This is quite strikingly shown in the following table, which graphically represents the rise and fall of wage with age:

COMPUTED FULL WEEKLY EARNINGS OF FEMALES EMPLOYED IN INCANDESCENT ELECTRIC LAMP ESTABLISHMENTS, BY AGE.

Age.	Full weekly earnings (computed).			Number of employees.
	Lower quartile.	Median.	Upper quartile.	
14 years	$4.75	$5.25	$6.25	14
15 years	5.00	6.00	7.00	53
16 years	5.00	5.75	7.00	274
17 years	5.50	6.50	7.50	374
18 years	6.00	7.00	8.25	351
19 years	6.25	7.25	8.50	321
20 years	6.75	8.00	8.75	281
21 years	6.50	8.00	9.25	178
22 years	7.00	8.25	9.50	151
23 years	7.00	8.25	9.25	138
24 years	7.25	8.50	9.50	74
25 to 29 years	7.00	8.00	9.25	225
30 to 34 years	6.50	7.75	9.50	71
35 to 44 years	6.75	7.50	9.25	49
45 years and over	5.50	6.75	7.75	10
Others reported as 21 years and over	7.50	8.50	9.75	192
Total 16 years and over	6.25	7.50	8.75	2,689

The period of most rapid advance is from 16 to 20 years, after which the slight rise that takes place up to 24 years is gradual. In the period 25 to 29 and following wages slightly decline and in the group 45 years and over (with only 10 employees) are again practically on a level with those of persons 17 years old.

A further point in regard to this relation of wage and age is more clearly brought out in the following table, which shows the distribution of the persons of each age group relative to the scale of wages.

NUMBER OF FEMALE EMPLOYEES IN INCANDESCENT ELECTRIC LAMP ESTABLISHMENTS RECEIVING EACH CLASSIFIED AMOUNT OF FULL WEEKLY EARNINGS, BY AGE.

Age.	Full weekly earnings (computed)—													Total.
	Under $4.	$4 to $4.99.	$5 to $5.99.	$6 to $6.49.	$6.50 to $6.99.	$7 to $7.49.	$7.50 to $7.99.	$8 to $8.49.	$8.50 to $8.99.	$9 to $9.99.	$10 to $10.99.	$11 to $11.99.	$12 and over.	
14 years	1	3	5	2	1	......	1	......	1	......	......	......	......	14
15 years	1	11	14	6	5	6	3	4	1	1	1	......	......	53
16 years	10	48	82	24	31	21	16	22	5	9	4	1	1	274
17 years	10	38	75	41	67	44	30	16	19	23	4	5	2	374
18 years	6	25	52	29	51	38	32	33	19	40	19	6	1	351
19 years	6	17	39	32	38	36	35	32	22	33	18	8	5	321
20 years	......	6	22	24	33	23	31	43	29	40	15	8	7	281
21 years	1	10	15	7	22	16	16	21	15	27	15	5	8	178
22 years	......	3	13	7	13	11	15	16	16	33	12	7	5	151
23 years	......	4	6	9	11	9	14	19	17	29	8	7	5	138
24 years	......	......	4	3	5	10	8	6	8	17	9	3	1	74
25 to 29 years	......	4	15	16	19	22	24	38	20	26	20	8	13	225
30 to 34 years	2	4	6	3	8	8	8	6	5	11	7	2	1	71
35 to 44 years	......	2	6	2	5	4	7	5	3	5	4	4	2	49
45 years and over	......	......	3	......	2	1	2	......	......	1	......	......	1	10
Others reported as 21 years and over	......	1	12	8	9	16	19	20	24	44	26	10	3	192
Total	37	176	369	213	320	265	261	281	204	339	162	74	55	2,756

An examination of the figures of this table shows a decline in persons earning the very lowest amounts after 19 years. This is, it would seem, partly the result of an increase in earning capacity through experience, and probably also partly to the fact that few enter the industry as beginners after that age.

In order to prevent any misunderstanding of the foregoing tables, some explanation of the term "computed weekly earnings" used in the headings of both tables is necessary. As has been noted above, most of the employees in this industry are paid on a piece-rate basis, and many of those for whom data were secured did not work the full two weeks periods which the pay roll covered. The reduction of all to a common basis was possible only by increasing or decreasing the amount actually earned in each case to such a degree that each represented just the amount that would actually have been earned in a full week if the employee had continued working at the same efficiency during the entire pay-roll period.

EARNINGS, BY OCCUPATION.

In the first of the following two tables the average hourly earnings in each of the more important occupations is shown for all establishments combined. For purpose of more convenient comparison the computed earnings for the customary full week of 55 hours is added. In the second table 8 of the principal occupations are shown for the 4 largest establishments in which all 8 occupations appear and the average hourly earnings are shown by nativity and by establishments separately.

AVERAGE HOURLY EARNINGS AND COMPUTED EARNINGS PER WEEK OF 55 HOURS OF FEMALES EMPLOYED IN INCANDESCENT LAMP ESTABLISHMENTS, BY OCCUPATION.

Occupation.	Number employees.	Average earnings per hour.	Computed earnings per 55-hour week.
Filament department:			
Drum winding	21	$0.1458	$8.02
Form winding	25	.1421	7.82
Sizing	46	.1216	6.69
Cutting filaments	31	.1472	8.10
Treating	189	.1282	7.05
Spot testing	33	.1460	8.03
Miscellaneous	51	.1294	7.12
Lamp department:			
Wire welding	21	.1458	8.02
Stem making, hand	51	.1200	6.60
Stem making, machine	130	.1261	6.94
Mounting	226	.1401	7.71
Anchoring stems	49	.1140	6.27
Tabulating	86	.1559	8.57
Sealing in	147	.1385	7.62
Painting	20	.1041	5.73
Exhausting	182	.1530	8.42
Basing	90	.1369	7.53
Wire cutting	20	.1273	7.00
Soldering	74	.1259	6.92
Coil testing	13	.1408	7.74
Photometering	92	.1477	8.12
Arcing	42	.1579	8.68
Ageing	9	.1419	7.80
Miscellaneous	106	.1194	6.57
Repair and renewal department:			
Reaming	14	$0.1241	$6.83
Filling	19	.1218	6.70
Remounting	18	.1477	8.12
Retabulating	14	.1714	9.43
Rebasing	20	.1435	7.89
Repairing stems and seals	19	.1654	9.10
Breaking out platinums	30	.1101	6.06
Miscellaneous	47	.1315	7.23
General occupations:			
Cleaning and washing	101	.1281	7.05
Sorting	79	.1334	7.34
Labeling and marking	106	.1171	6.44
Wrapping and unwrapping	26	.1187	6.53
Packing	23	.1394	7.67
Inspecting	266	.1499	8.24
Floor help	21	.1219	6.70
Checkers and timekeepers	99	.1288	7.08
Overseers and instructors	33	.1687	9.28

AVERAGE HOURLY EARNINGS OF FEMALES 16 YEARS OF AGE AND OVER, BY NATIVITY, IN EIGHT SELECTED OCCUPATIONS IN FOUR PRINCIPAL INCANDESCENT ELECTRIC LAMP ESTABLISHMENTS.

Occupation.	Native born of native parents.		Native born of foreign parents.		Foreign born.		Total.	
	Number of employees.	Average hourly earnings-	Number of employees.	Average hourly earnings.	Number of employees.	Average hourly earnings.	Number of employees.	Average hourly earnings.
Stem-making machine:								
Establishment A	24	$0.1256	36	$0.1436	10	$0.1314	70	$0.1353
Establishment B	7	.1111	8	.1116	9	.1319	24	.1191
Establishment C	19	.1169	10	.1128	1	.1152	30	.1154
Establishment D	5	.1455	....	....	1	.1842	6	.1520
Mounting:								
Establishment A	28	.1401	73	.1421	19	.1460	120	.1423
Establishment B	14	.1563	15	.1640	20	.1436	49	.1532
Establishment C	22	.1138	12	.1226	....	....	34	.1169
Establishment D	12	.1414	3	.1643	....	....	15	.1460
Tabulating:								
Establishment A	19	.1782	24	.1672	8	1427	51	.1681
Establishment B	7	.1641	2	.1770	5	.1604	14	.1645
Establishment C	8	.1044	7	.1587	....	....	15	.1165
Establishment D	5	.1820	....	....	....	....	5	.1820
Sealing in:								
Establishment A	23	.1375	42	.1412	25	.1598	90	.1456
Establishment B	4	.1619	7	.1251	7	.1482	18	.1421
Establishment C	22	.1204	5	.1183	....	....	27	.1200
Establishment D	5	.1669	2	.1480	....	....	7	.1611
Exhausting:								
Establishment A	24	.1511	38	.1624	25	.1451	87	.1541
Establishment B	5	.1724	8	.1704	23	.1770	36	.1749
Establishment C	24	.1346	9	.1236	1	.1237	34	.1312
Establishment D	10	.1332	2	.1349	....	....	12	.1335
Basing:								
Establishment A	8	.1418	24	.1410	23	.1483	55	.1442
Establishment B	4	.1741	3	.1687	5	.1800	12	.1753
Establishment C	7	.0910	13	.1036	....	....	20	.0996
Establishment D	2	.1753	....	....	....	....	2	.1753
Soldering:								
Establishment A	1	.1524	10	.1361	31	.1298	42	.1317
Establishment B	....	....	....	....	12	.1302	12	.1302
Establishment C	7	.1059	5	.1147	....	....	12	.1098
Establishment D	6	.1252	....	....	....	....	6	.1252
Photometering:								
Establishment A	18	.1607	35	.1498	7	.1708	60	.1558
Establishment B	3	.1526	7	.1432	7	.1513	17	.1481
Establishment C	6	.1305	1	.1039	....	....	7	.1266
Establishment D	2	.1195	1	.0831	....	....	3	.1073

THE FACTORY AND WORKING CONDITIONS.

As the manufacture of incandescent lamps is in its general character "factory work," the buildings in which the industry is housed and the general conditions surrounding it present in themselves no special features, and may therefore be treated briefly.

BUILDINGS.

Regarding, first, the buildings, it was found that, with one single exception, they were far from modern, and were generally inferior to what would be expected in so highly developed an industry. The general character of these buildings is indicated in the following outlined description, in which the separate establishments are considered in the order of their relative size:

Establishment A: Brick buildings, three and four stories high; no fire escapes; sufficient inside stairways; concrete floors and sliding fire doors; sufficient fire fighting appliances; workrooms not crowded.

Establishment B: Frame buildings, one three-story, two two-story buildings; no fire escapes; sufficient inside stairways; complete fire-fighting equipment; workrooms not crowded.

Establishment C: Reenforced concrete, four-story building, new, well lighted; sufficient fire escapes; complete fire-fighting equipment; workrooms not crowded.

Establishment D: Brick building, two stories; no fire escapes; sufficient stairways and fire-fighting equipment; workrooms not crowded.

Establishment E: Brick building, five stories; two iron fire escapes, insufficient stairways; sufficient fire-fighting equipment; workrooms not crowded.

Establishment F: Frame building, three stories; no fire escapes; insufficient stairways; no fire-fighting equipment; workrooms not overcrowded.

Establishment G: Frame building, one story; no fire protection; workrooms not crowded.

Establishment H: Two two-story brick buildings; no fire escapes, insufficient stairways and exits; sufficient fire-fighting equipment; workrooms not crowded.

FIRE ESCAPES.

The fact that these buildings are so generally without fire escapes of any description seems worthy of special notice. In one establishment, what was claimed by the manager as a fire escape consisted of an outside wooden stairway 3 feet wide, which ran from a side window on the third floor to the top of a one-story wooden annex, the roof of which was 15 feet above the ground. The entrance to this stairway was through a window, the approach to which was interfered with by belting and boxes, leaving a narrow, uncertain passage which would be exceedingly dangerous in case of fire. The inside stairway in the same building was of wood, and only 4 feet wide, thus rendering the position of the employees doubly dangerous.

VENTILATION.

The workrooms, it will be noted, were in no case reported as overcrowded, but this by no means implies that the ventilation was in all cases good. The problem of proper ventilation is a somewhat difficult one in this industry because of the very large number of gas jets used. These jets consume an enormous amount of oxygen, and create a correspondingly large amount of carbon dioxide, and the supply of fresh air can not be secured by direct ventilation, as the slightest breeze or draft causes the jets to flare, which renders the work difficult and spoils a large amount of raw material. These conditions are to be found particularly in the lamp department proper, and in the department in which the lamps are based and soldered. Only two of the establishments have made any serious attempts to remedy these undesirable features. In one of these two establishments, a one-story building, a high-peaked roof with ventilators at the crown provided a means of getting rid of the fumes and dead air without at all interfering with the work. This method, however, is impracticable for the large factories, and in the most modern of the plants visited, suction fans are used to secure the same result. In two establishments, basement rooms are used for some of the work, and the conditions in these rooms are particularly bad.

DRESSING ROOMS, WASH ROOMS, AND REST ROOMS.

In one of the larger and one of the smaller establishments, dressing rooms were provided for the accommodation of the women employed. In the remaining establishments nothing more was provided than closets, or lockers, in which to hang their cloaks and hats. These two establishments were also the only ones in which any special facilities for washing were provided. There were no rest rooms in the ordinary sense for the use of the employees during the lunch period or at other times; but in one of the larger establishments there were two rooms, nicely fitted with beds and all common medical appliances, in charge of a trained nurse for the care of any employees who were injured or taken sick during the day. Most of the cases received here were said to be cases of nervous collapse, the natural result of the extreme tension at which the work is done.

Only one of the establishments was reported as making any provisions for the lunch of the employees, and in this case the conditions were such as to render the name of lunch room unsuitable. The report in this case shows a small lunch room in one corner of the second floor workroom, where hot coffee and sandwiches may be purchased. The lunch counter is not screened in any way from the workroom, and the workbenches are the only places where the girls can eat their meals. Moreover, right next to the lunch counter is the workbench of the man preparing the frosting. Hydrofluoric acid forms a very noticeable part of the mixture, and there is no hood, exhaust fan, or anything of the sort near the work. The man places the open bucket on the floor and stoops directly over it as he stirs the mixture.

WATER-CLOSETS.

The general state of the toilet provisions is shown in the following table:

ELECTRIC-LAMP ESTABLISHMENTS CLASSIFIED AS TO TOILET PROVISIONS, WITH NUMBER AND PER CENT OF EMPLOYEES HAVING TOILETS OF EACH CLASS.

Condition of toilets.	Number of establishments.	Number of employees.					Per cent of employees having toilets of each class.				
		16 years and over.		Under 16 years.		Total.	16 years and over.		Under 16 years.		Total.
		Male.	Female.	Male.	Female.		Female.	Male.	Female.	Male.	
Sufficient	5	733	2,759	11	37	3,540	89.9	85.0	91.7	51.4	85.4
Insufficient	3	82	485	1	35	603	10.1	15.0	8.3	48.6	14.6
Condition as to cleanliness:											
Males and females—											
Good	4	731	2,744	10	37	3,522	89.7	84.6	83.4	51.4	85.0
Fair	......	......	......	......	......	......	......	......	......	......	......
Bad	2	18	58	1	3	80	2.2	1.8	8.3	4.2	1.9
Males, fair; females, bad	1	64	427	......	32	523	7.9	13.2	......	44.4	12.6
Males, bad; females, good	1	2	15	1	......	18	.2	.4	8.3	......	.5

All of these toilets are located inside the buildings, but none of them are so situated or in such condition as to affect the air of the workrooms. In two cases, however, the toilets were so located that a great deal of time was lost by the employees, and as the greater number of them are working at piece rates this meant also a loss of wages. The same remarks apply to the three establishments in which the number of seats was insufficient, as this entails a great deal of unnecessary waiting in addition to the possible injury to health from the delay.

PART IV.—FAMILY CONDITIONS AND AMOUNT AND SOURCES OF FAMILY INCOME.

CHAPTER XX.

FAMILY CONDITIONS AND AMOUNT AND SOURCES OF FAMILY INCOME.

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FAMILY CONDITIONS AND AMOUNT AND SOURCES OF FAMILY INCOME.

EXPLANATION OF MATERIAL IN REGARD TO FAMILY CONDITIONS.

In order to study the family conditions of those families having women or children employed in the glass factories, the names of a certain number of woman and child employees of various ages were selected from the list of employees as taken from the pay rolls of each of the establishments investigated and visits were made to the homes. From these were secured schedules with detailed information in regard to the individual workers and their families. Schedules showing such family condition were secured for nearly all children under 16 and for about half of the women workers. In a few cases, however, establishments were investigated for the woman and child employees of which, on account of lack of time, no schedules were secured. A sufficient number of schedules were secured to fully represent the home conditions of woman and child employees in the glass industry. Altogether 2,137 families were visited, a number which is approximately one-half of the total number of families represented by the woman and child glass workers in the factories covered. The 2,137 families were widely distributed, 14 States being represented by a total of more than 100 separate communities. The following table shows the classification of these families, by States:

NUMBER OF FAMILIES VISITED, BY STATES.

States.	Number of families visited.	States.	Number of families visited.
Georgia	6	Pennsylvania	901
Illinois	176	South Carolina	5
Indiana	125	Tennessee	9
Maryland	47	Virginia	26
Missouri	21	West Virginia	297
New Jersey	160	Wisconsin	43
New York	70		
Ohio	251	Total	2,137

Because of the wide geographical distribution of the families concerned, with the consequent small total numbers in certain States, it has been deemed necessary to disregard state lines in much of the following tabular presentation. Where such broad grouping seemed inadvisable the data has been tabulated in three smaller groups. Group I includes the States of New Jersey, Pennsylvania, and West Virginia; Group II the States of New York, Ohio, Illinois, Indiana, Missouri, and Wisconsin; and Group III the States of Maryland, Virginia, South Carolina, Tennessee, and Georgia. In a few cases, moreover, when the subject to be developed was one of a particularly intimate character, the plan has been followed of limiting the presented data to one or more of the larger communities of which special study was made and concerning which, therefore, the information available is especially complete. Those communities are not necessarily identical with the limits of specific towns or cities. There are several instances where closely adjoining towns form a homogeneous community from the standpoint of family and family life, and the effort was to select representative communities, using the term in the broad sense mentioned. The total number of such communities referred to in the text is 8. The following table lists these communities and gives the number of schedules obtained in each:

NUMBER OF FAMILIES VISITED IN 8 REPRESENTATIVE COMMUNITIES.

State.	Name.	Number of families visited.
Pennsylvania	Pittsburg	233
Ohio and West Virginia	Ohio River district (a)	297
New York and Pennsylvania	Olean-Bradford district (b)	117
New Jersey		112
Pennsylvania	Philadelphia	104
Do		109
West Virginia	Morgantown district (c)	114
Indiana		65
Total		1,151

(a) Includes Bellaire and Martins Ferry, Ohio; and Wheeling, Follansbee, and Moundsville, W. Va.
(b) Includes Olean, N. Y.; and Bradford, Hazelhurst, Smethport, Kane, and Shinglehouse, Pa.
(c) Includes Morgantown, Fairmont, Grafton, and Mannington.

For all woman and child employees of the glass factories investigated, and for those male employees who worked in occupations where any women or children were also engaged, information was secured relating to occupation, sex, age, race, and place of birth, together with the hours worked and the actual earnings for a recent pay-roll period. For representative families selected as just described, and for their individual members, information was secured in the homes, covering a variety of subjects. All this information relating to representative glass-factory families is presented in detailed form in Tables XXVII to XXX, and in a variety of summaries in Tables XI to XXIV. The arrangement of the detailed Tables XXVII to XXX is:

(a) Families having children under 16 years of age at work (Table XXVII).
(b) Families having single women 16 years of age and over at work (Table XXVIII).

(*c*) Families having married women at work (Table XXIX).

(*d*) Married women at work living in homes other than their own (Table XXX).

The summary tables relating to representative families are arranged to present:

(*a*) Composition of families and condition of members as to employment (Table XI).

(*b*) Income of family and of members grouped in a variety of ways:

- Income of family and income from certain sources, in families with father at work, mother at work, and children of certain specified ages at work (Table XII).
- Income of families with children under 14 years of age at work, excluding earnings of such children, by size of family (Table XIII).
- Income of families with children under 14 years of age at work, excluding earnings of such children, by size of family and nativity of head of family (Table XIV).
- Income of families with children under 16 years of age at work, excluding earnings of such children, by size of family (Table XV).
- Income of families with children under 16 years of age at work, excluding earnings of such children, by size of family and nativity of head of family (Table XVI).
- Income of families, cost of rent, and housing conditions, for families owning and renting homes (Table XVII).

(*c*) Summaries for families with children at work, classified as families of widows, deserted mothers, idle fathers, fathers at work, etc.:

- Families with children under 14 years of age at work (Table XVIII).
- Families with children 14 and 15 years of age at work (Table XIX).

(*d*) Summary for families with single women 16 years of age and over at work, by age (Table XX).

(*e*) Summaries for families of married women at work, classified as families of widows, deserted wives, wives of idle husbands, wives of husbands at work, etc.:

- Married women at work living at home (Table XXI).
- Married women at work living in homes other than their own (Table XXII).
- Married women at work having children under 14 years of age at work (Table XXIII).

(*f*) Earnings and days worked of fathers at work with children under 14 years of age at work (Table XXIV).

With regard to the facts secured in the home, descriptive of the family, it should be said concerning the ages of the children that wherever possible the age was secured in the first instance in the factory from the child itself. Wherever certificates or other evidence of the ages of the children were on file at the factory, they were examined for verification. In many cases where it appeared to the agent that the ages reported by the children or as stated in the certificate were not correct, inquiry was made in the home and documentary evidence, if there existing, was examined, and the ages as reported were corrected if the evidence was conclusive. In other cases examination was also made of school or birth records where such were available, as furnishing evidence of the child's age. If no evidence was found, or if it was of a doubtful character, ages were accepted and reported as given by the child, or the parent, as the case might be.

The days worked and the earnings or income for the year as given throughout the tables are as secured in the home by careful questioning of members of the family. With a knowledge of the occupation, the age, the usual earnings of the occupation, and the earnings of the individual during a recent period, secured from the pay roll, the employee was asked to give the agent estimates of the days worked and the earnings during the past year. Great care was used in questioning to see that due allowance was made for all changes in rates of wages during the year and for all time lost either by sickness, irregularity of the employee, or a reduction of time or the working force in the establishment. As a result of this careful questioning, the reports of days worked and earnings secured were as accurate as it is possible to secure in the absence of detailed records. They are, however, necessarily only approximate, sometimes with a considerable error in the case of an individual worker or an individual family, but probably not far from the facts when taken together or in groups of any considerable number.([a])

GENERAL CHARACTER OF THE FAMILIES.

The families of the woman and child glass workers show, upon analysis, very few distinguishing characteristics. So far as could be ascertained they do not form a particular class, nor do they represent any particular element of American life. The glass factories of the country have no special habitat. They are variously in large cities, in towns, in villages, and at times in isolated country districts. The class of the population upon which they draw for their woman and child employees is, for the most part, simply the dominant class of the particular community.

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[a] For an explanation of the manner of verifying estimates of earnings, and the difficulties involved, see "Cotton Textile Industry," Vol. I of this report, pp. 416-418; "Men's Ready-Made Clothing," Vol. II of this report, pp. 352 and 353; "The Silk Industry," Vol. IV of this report, Chapter VII.

From the standpoint of racial distribution, this is evident from the following classification of the 2,137 families according to the nativity and race of head of family:

NUMBER AND PER CENT OF FAMILIES OF EACH NATIVITY AND RACE.

Nativity and race of head of family.	Number.	Per cent of total.
Native-born of native parents:		
White	787	36.8
Colored	83	3.9
Native-born of foreign parents:		
English	27	1.3
French	8	.4
German	154	7.2
Irish	77	3.6
Italian, South	1	[a].0
Polish	1	[a].0
Other races	2	.1
Total	270	12.6
Foreign-born:		
English	77	3.6
French	59	2.8
German	296	13.9
Irish	117	5.5
Italian, South	50	2.3
Polish	208	9.7
Other Slavs	135	6.3
Other races	55	2.6
Total	997	46.7
Grand total	2,137	100.0

[a] Less than 0.1 per cent.

The distribution thus shown does not evidence any particular racial predominance among the families of women and children glass workers. The Negro race is scantily represented, partly because there is undoubted discrimination against Negro women, and partly because in most of the communities concerned the Negro race is industrially of little importance. With this exception the races which is most prominent in the factories of a particular locality are usually those which are most prominent in the locality at large. This is indicated in the following table, which classifies by nativity and race of head of family the 1,151 families scheduled in eight important glass manufacturing communities.

NUMBER OF FAMILIES OF EACH NATIVITY AND RACE, IN 8 SPECIFIED REPRESENTATIVE COMMUNITIES.

Race and nativity.	Number of families of specified races and nativities in—								Total.
	Pittsburg.	Ohio River district.	Olean-Bradford district.	New Jersey glass town.	Philadelphia.	Pennsylvania glass town.	Morgantown district.	Indiana city.	
Native-born of native parents:									
White	24	173	46	74	29	10	65	43	464
Colored	....	....	....	....	....	....	2	5	7
Native-born of foreign parents:									
English	3	8	1	....	3	1	1	2	19
French	....	4	....	1	....	1	....	....	6
German	21	26	4	6	3	6	9	1	76
Irish	7	18	6	5	19	1	6	2	64
Other races	....	....	....	1	....	....	....	1	2
Total	31	56	11	13	25	9	16	6	167
Foreign born:									
English	6	9	1	4	3	9	5	1	38
French	1	6	8	3	....	30	3	....	51
German	56	23	13	6	6	14	10	3	131
Irish	17	19	8	8	32	2	2	1	89
Italian, South	5	2	12	....	5	10	4	....	38
Polish	75	....	9	2	3	4	....	....	93
Other Slavs	7	4	1	1	....	14	4	....	31
Other races	11	5	8	1	1	7	3	6	42
Total	178	68	60	25	50	90	31	11	513
Total, all nativities	233	297	117	112	104	109	114	65	1,151

The New Jersey and Indiana towns included in this table are still peopled largely by native American stock, and here the American whites are most prominent in the glass factories. The Pennsylvania glass town retains a large French element, and this is well represented in the glass industry of that place. The working population of Pittsburg is largely of the recent immigrant type, and here the various branches of the Slav race are prominent in the glass factories.

From the industrial standpoint there is a similar heterogeneity. The fact that one or more of the children or women of a family are employed in the glass industry does not necessarily imply that the father or other members are there employed or that the glass industry as such has any serious influence upon the family life. Of the 1,151 families in the 8 communities listed in the preceding table the father was an active member in 868. Only 28.7 per cent of these fathers, however, were in the glass industry, the remaining 71.3 per cent being employed in diverse industries. Nor did these fathers represent any particular class of labor—167 of the 868 were of the skilled type (receiving a daily wage of at least $3), 259 were semiskilled workers (receiving between $2 and $3 per day), and 389 were unskilled or common laborers (receiving less than $2 per day). The remaining 53 fathers were not wage-earners at all, being engaged in independent professions or trades. The exact distribution of the fathers upon these points of industrial employment and relative earning capacity is shown in the following tables in total and for the several communities separately. A separation is further made between the 872 families in which children were at work, and the 279 families in which there were women but no children at work.

FAMILIES WITH CHILDREN UNDER 16 AT WORK AND WITH WOMEN BUT NO CHILDREN UNDER 16 AT WORK IN 8 REPRESENTATIVE COMMUNITIES, BY CONDITION OF FATHERS.

TOTAL FAMILIES REPORTED.

Condition of fathers.	Families having—				Total familes.	
	Children under 16 at work.		Women but no children under 16 at work.			
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Absent or unable to contribute	171	19.6	102	36.6	273	23.7
Able to contribute	701	80.4	177	63.4	878	76.3
Total	872	100.0	279	100.0	1,151	100.0

FAMILIES HAVING FATHERS ABSENT OR UNABLE TO CONTRIBUTE.

Dead	114	66.7	68	66.7	182	66.7
Deserter or divorced	36	21.0	10	9.8	46	16.8
Incapacitated	21	12.3	24	23.5	45	16.5
Total	171	100.0	102	100.0	273	100.0

FAMALIES HAVING FATHERS ABLE TO CONTRIBUTE.

Idle	3	0.4	7	4.0	10	1.1
At work	698	99.6	170	96.0	868	98.9
Total	701	100.0	177	100.0	878	100.0

CHARACTER OF EMPLOYMENT OF WORKING FATHERS.

In independent trades and professions	47	6.7	6	3.5	53	6.1
Wage-earners	651	93.3	164	96.5	815	93.9
Total	698	100.0	170	100.0	868	100.0

EARNINGS OF WAGE-EARNING FATHERS.

Earning $3 per day and over (skilled)	133	20.4	34	20.7	167	20.5
Earning $2 and under $3 (semiskilled)	204	31.4	55	33.6	259	31.8
Earning under $2 (unskilled)	314	48.2	75	45.7	389	47.7
Total	651	100.0	164	100.0	815	100.0

INDUSTRIES EMPLOYING WAGE-EARNING FATHERS.

Employed in—						
Glass	192	29.5	42	25.6	234	28.7
Iron and steel	119	18.3	34	20.7	153	18.8
Mining, coal	51	7.8	21	12.8	72	8.8
Building trades	38	5.8	10	6.1	48	5.9
Miscellaneous	251	38.6	57	34.8	308	37.8
Total	651	100.0	164	100.0	815	100.0

FAMILIES WITH CHILDREN UNDER 16 AT WORK AND WITH WOMEN BUT NO CHILDREN UNDER 16 AT WORK IN 8 REPRESENTATIVE COMMUNITIES, BY CONDITION OF FATHERS—Concluded.

FAMILIES WITH WAGE-EARNING FATHERS, IN GLASS INDUSTRY.

Condition of fathers.	Families having—				Total families.	
	Children under 16 at work.		Women but no children under 16 at work.			
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Skilled	57	29.7	14	33.3	71	30.3
Other	135	70.3	28	66.7	163	69.7
Total	192	100.0	42	100.0	234	100.0

FAMILIES IN 8 SPECIFIED REPRESENTATIVE COMMUNITIES, BY CONDITION OF FATHERS.

TOTAL FAMILIES REPORTED.

Condition of fathers.	Number of families in each specified district.								Total families.
	Pittsburg.	Ohio River.	Olean-Bradford.	New Jersey glass town.	Philadelphia.	Pennsylvania glass town.	Morgantown.	Indiana city.	
Absent or unable to contribute	60	92	17	20	21	17	32	14	273
Able to contribute	173	205	100	92	83	92	82	51	878
Total	233	297	117	112	104	109	114	65	1,151

FAMILIES HAVING FATHERS ABSENT OR UNABLE TO CONTRIBUTE.

Dead	39	62	13	12	19	9	17	11	182
Deserter or divorced	8	15	3	4	1	3	10	2	46
Incapacitated	13	15	1	4	1	5	5	1	45
Total	60	92	17	20	21	17	32	14	273

FAMILIES HAVING FATHERS ABLE TO CONTRIBUTE.

Idle	6	2	......	......	......	1	1	......	10
At work	167	203	100	92	83	91	81	51	868
Total	173	205	100	92	83	92	82	51	878

CHARACTER OF EMPLOYMENT OF WORKING FATHERS.

In independent trades and professions	6	13	7	3	7	6	4	7	53
Wage-earners	161	190	93	89	76	85	77	44	815
Total	167	203	100	92	83	91	81	51	868

EARNINGS OF WAGE-EARNING FATHERS.

Earning $3 per day and over (skilled)	24	56	19	25	7	10	20	6	167
Earning $2 and under $3 (semiskilled)	42	66	25	16	31	42	27	10	259
Earning under $2 (unskilled)	95	68	49	48	38	33	30	28	389
Total	161	190	93	89	76	85	77	44	815

FAMILIES IN 8 SPECIFIED REPRESENTATIVE COMMUNITIES, BY CONDITION OF FATHERS—Concluded.

INDUSTRIES EMPLOYING WAGE-EARNING FATHERS.

Condition of fathers.	Number of families in each specified district.								Tota families.
	Pittsburg.	Ohio River.	Olean-Bradford.	New Jersey glass town.	Philadelphia.	Pennsylvania glass town.	Morgantown.	Indiana city.	
Employed in—									
Glass	8	44	23	78	5	32	35	9	234
Iron and steel	102	29	2		10	2		8	153
Mining, coal	2	26				30	12	2	72
Building trades	3	13	5		10	2	9	6	48
Miscellaneous	46	78	63	11	51	19	21	19	308
Total	161	190	93	89	76	85	77	44	815

FAMILIES WITH WAGE-EARNING FATHERS, IN GLASS INDUSTRY.

Condition of fathers.	Pittsburg.	Ohio River.	Olean-Bradford.	New Jersey glass town.	Philadelphia.	Pennsylvania glass town.	Morgantown.	Indiana city.	Tota families.
Skilled	4	18	7	25	2	5	6	4	71
Other	4	26	16	53	3	27	29	5	163
Total	8	44	23	78	5	32	35	9	234

Examination of the second part of this table will show, as has already been mentioned, that in any given community the predominant employment of the father is that of the predominant industry. Thus in the New Jersey town the fathers are almost entirely glass workers, it being primarily a glass-manufacturing community; whereas in none of the other 7 communities, except the Morgantown district, is any considerable portion of the fathers engaged in the glass industry. In Pittsburg the fathers are very largely iron and steel workers, the iron and steel industry there being most prominent, and in the western Pennsylvania town and the Ohio River district of Ohio and West Virginia coal mining offers employment to a considerable portion of the fathers.

From the preceding remarks it is evident that the women and child glass workers do not represent a particular class of people, racially, industrially, or, by inference, socially. The work that women and children perform in the glass factory apparently does not appeal to any special type of person nor, on the whole, does any special type evince aptitudes that renders it of distinguishing value to the manufacture. The furnace-room boys of the recent immigrant races, the Italian, the Slav, the Greek, the Pole, have little chance of advancement to apprenticeship, and the negro none at all, but as far as concerns employment as furnace-room boys there is little or no discrimination in employment because of race. The Hebrew was virtually unrepresented among furnace-room boys, but all the other important races were represented in considerable degree. The qualifications of the work are simple. No special aptitude and little intelligence is needed. An ignorance of the English language is hardly a handicap. And, therefore, as the pay is generally higher than a boy of the same age receives elsewhere, boys of all classes are attracted.

For the women, also, the above statements are largely true. Intelligence and manual dexterity will aid a worker here more than in the case of the furnace-room boys, but there is much of the woman's work which requires little of either. The physically unable are not acceptable, as is sometimes true with the boys, but many occupations are not physically severe, and some can be performed by even immature girls. Moreover, the work may be of a character to attract women of refinement, this depending largely upon the management and conduct of the individual factory. In a number of places the glass factory, or a single department of it at least, is made so desirable as a place of employment for women that a higher social standing attaches to the work than that of the work of other employments open to such persons.

Finally, it is to be especially emphasized, as it has already been implied, that there is little trace in the glass industry of such an institution as the "glass family," in the sense that there is in certain cotton communities a distinct type of "mill family." There is an important number of glass communities, communities of varying size, in which one or more glass factories constitute the dominating influence, are the largest employers of labor, and are the arbiters, in great measure, of the local welfare. In such communities, moreover, there are sometimes to be found families of which all the working members are employed in the glass factory. These families are to that extent practically dependent upon the one factory, the one industry, for their living. The situation is analogous to that existing in certain of the cotton-mill towns. But the analogy is almost wholly external. The relation of the family to the factory and the effect of the factory upon the family life are not the same in the two cases.

There is a twofold reason for this. In the first place, a glass factory can rarely offer employment to all the members of all the families of its community, as does the cotton mill. The glass factory may be able to use the services of all the young boys, but it seldom desires more than a small proportion of the available adult male labor, and a still smaller proportion of the adult females. A bottle factory wants at most but a dozen women or girls for a hundred men and boys, and, while a tableware factory may employ a much larger percentage of female labor, the proportion rarely rises higher than 1 female to 4 or 5 males. Thus no glass factory does, or can under normal circumstances, employ all the working-age members of any considerable number of families. There are always a large number, who, if they desire work, must seek it elsewhere than at the glass factory.

The second characteristic which distinguishes the "glass family" from the "mill family" is that the former, even when it exists as an apparently definite body, is not permanent. This results largely from the necessary composition of the labor force in the glass industry. In a glass factory the labor force is clearly defined into four groups. Roughly outlined, these are: (1) The blowers, the skilled glass worker, limited in number and very well paid; (2) the shop boys and unskilled yard laborers, somewhat more numerous than the blowers, and receiving the wages of unskilled labor; (3) the semiskilled packers, mixers, furnace men, mold makers, etc., few in number, and receiving from $2 to $2.50 per day; and (4), if it is a tableware or shade factory, the women, together with a few men, in the finishing department. A fraction of this finishing work is skilled and well paid, but the greater part of it neither requires nor encourages any considerable degree of skill.

In any case the women do not compete with the men in the better-paid occupations; and, as a rule, the departments do not compete among themselves. If the shop boy does not become an apprentice at the age of 18 or 19 he has practically no chance of ever becoming one, and as the other opportunities in the glass factory are so slight, he will, if he is at all intelligent or ambitious, seek a more favorable opening elsewhere. He has not learned a trade, to desert which might require some moral courage. What he may have learned will serve him as well in another industry as it will in any future connection with the glass factory. Thus among the force of common laborers, the shop boys especially, there is in almost every factory a constant changing of personnel, a condition unfavorable to the creation of a "mill family."

Among the skilled blowers, although for another reason, the conditions are similarly unfavorable for such a result. The glass blower receives very good wages; his income is sufficient to render him fairly independent, to support a family in reasonable comfort, and to place him in a position where he may choose at will the trade or profession he may desire his children to follow. Rarely does his choice fall upon the glass trade.

This subject of glass towns and glass families may best be illustrated by citing the situation in New Jersey, and contrasting it with conditions elsewhere. In the southern part of New Jersey there are several towns of varying size, which are usually referred to as typical glass communities. Founded, some of them well over a century ago, about the walls of glass factories, they retain even to-day much of their early character, notwithstanding a steady increase in population and wealth. Glassboro, Millville, Bridgeton, Williamstown, Clayton, Salem, are of this type. In each of these towns the glass factory is still a dominant, sometimes the predominant, factor in the community's life. It is a large, if not the largest, employer of labor, the management and the skilled workmen are influential in town affairs, and its prosperity and the town's prosperity are almost synonymous terms.

In such places glass blowing was, and in a fast lessening degree still is, an hereditary trade. It was an honorable trade, well remunerated, bringing social standing and sometimes political preferment. It was a trade to which a father might train his sons with the knowledge that it offered not only the most favorable local opportunity, but one of the most favorable any where offered. Thus in the course of time there came into existence a certain type of glass family. But in most cases it was a term of honor. There have been exceptions at times. The isolated glass community brought company stores and company houses, with attendant evils that have not yet been entirely eradicated. Blowers and laborers fell into the company's debt and became subject to exploitation. But such cases are now exceptional in New Jersey, and elsewhere rarely exist even in modified form.

Outside of New Jersey, indeed, it is very unusual for a blower to permit his sons or daughters to work in the glass factory, much less to deliberately encourage them to do so. Various reasons are assigned for this attitude of mind, but, whatever the cause, the fact is strikingly evident. The sons of a glass blower do not frequently become glass blowers, and if his wife or daughter works in the glass factory it is usually for some very exceptional reason.

Thus it is evident that the conditions in the glass industry are not favorable to the development of a special type of "family." With the families of blowers such a result is almost impossible; with the families of the unskilled laborers it is highly improbable. Recently, with the growing scarcity in the supply of young boys for furnace-room work, several factories have adopted the policy of "importing families." Fathers with several young sons are guaranteed regular employment if the boys are also put to work. Recent immigrant families, Italian and Slavs, are the ones most often "imported" in this manner. Under the terms of the agreement the ties between these families and the factory are particularly close, and these do constitute a special type of what may be called the glass family. But such a family rapidly disintegrates. The boys are employed as shop boys, and in a few years at most they are old enough to become apprentices. If they are apprenticed, they are soon journeymen blowers and independent. If they are not so chosen, and foreign-born persons of southern Europe have little chance to be chosen, they are in any case strictly their own masters and searching for more promising work.

COMPOSITION OF FAMILIES AND CONDITION OF MEMBERS AS TO EMPLOYMENT.

The condition of the 2,137 families as regards size of family and number of wage-earners per family is shown in the following table, the families being classified according to the nativity and race of head of family:

TOTAL FAMILIES, TOTAL AND AVERAGE MEMBERSHIP OF FAMILIES, AND TOTAL AND AVERAGE WAGE-EARNERS IN FAMILIES, BY NATIVITY AND RACE.

Nativity and race of head of family.	Total number of families.	Members of families.		Wage-earners in families.	
		Total.	Average per family.	Total.	Average per family.
Native born, native parents:					
White	787	4,801	6.1	2,381	3.0
Colored	83	434	5.2	253	3.0
Native born, foreign parents:					
English	27	165	6.1	77	2.9
French	8	44	5.5	21	2.6
German	154	977	6.3	446	2.9
Irish	77	490	6.4	221	2.9
Italian, South	1	5	5.0	3	3.0
Polish	1	6	6.0	2	2.0
Other races	2	16	8.0	7	3.5
Total	270	1,703	6.3	777	2.9
Foreign born:					
English	77	494	6.4	239	3.1
French	59	333	5.6	180	3.1
German	296	1,934	6.5	952	3.2
Irish	117	778	6.6	374	3.2
Italian, South	50	327	6.5	140	2.8
Polish	208	1,472	7.1	616	3.0
Other Slavs	135	920	6.8	396	2.9
Other races	55	364	6.6	164	3.0
Total	997	6,622	6.6	3,061	3.1
Grand total	2,137	13,560	6.3	6,472	3.0

The average number of members per family for the total number of families concerned is thus seen to have been 6.3, and the average number of wage-earners per family 3. In the former case the racial variations from the average were very considerable. Excluding the native-born Italian race, which was represented by only one family, the average family membership varied from 5.2 in the case of the 83 colored families to 7.1 in the case of the 208 foreign-born Polish families. The number of wage-earners per family shows less variation. Excluding the native-born Polish race, represented by only one family, the average number of wage-earners per family varied from 2.6 in the native-born French families to 3.2 in the foreign-born German and Irish families.

The table following shows the composition of the 2,137 families scheduled as regards the presence in the several families of father, mother, children 16 years of age and over, children 14 and 15 years of age, children under 14 years of age, and dependents. The families

NUMBER AND PER CENT OF FATHERS AND MOTHERS LIVING WITH FAMILIES, OF NATIVITY

Nativity and race of head of family.	Number of families.	Fathers living with family.		Mothers living with family.	
		Number.	Per cent of all families.	Number.	Per cent of all families.
Native born of native parents:					
White	787	608	77.3	764	97.1
Colored	83	56	67.5	82	98.8
Native born of foreign parents:					
English	27	21	77.8	27	100.0
French	8	6	75.0	8	100.0
German	154	131	85.1	153	99.4
Irish	77	63	81.8	74	96.1
Italian, South	1	1	100.0	1	100.0
Polish	1	1	100.0	1	100.0
Other races	2	2	100.0	2	100.0
Total	270	225	83.3	266	98.5
Foreign born:					
English	77	63	81.8	76	98.7
French	59	55	93.2	56	94.9
German	296	222	75.0	292	98.6
Irish	117	86	73.5	112	95.7
Italian, South	50	48	96.0	47	94.0
Polish	208	189	90.9	204	98.1
Other Slavs	135	125	92.6	134	99.3
Other races	55	46	83.6	54	98.2
Total	997	834	83.7	975	97.8
Grand total	2,137	1,723	80.6	2,087	97.7

It will be noted from this table that the mother is alive and living as a member of the household in almost all of these families (97.7 per cent), but that the father is no longer a member in almost one-fifth (19.4 per cent) of the cases.

In contrasting the data for the several races the native-born French, Italian, and Polish of foreign parentage can not be used, the number of scheduled families for each of these races being too small to be representative. Limiting attention to the remaining races, therefore, the American colored is shown to have the lowest percentage of fathers living at home (67.5 per cent) and the American white to have a percentage considerably below the average. On the other hand, the families of the more recent immigrant races—the Italian, the Pole, and other Slavs—show a very high proportion of fathers living at home, a situation due, no doubt, to the fact of their recent immigration. Without the father few such families would have are classified according to the nativity and race of the fathers, and the unit considered is the natural family, persons living as boarders and lodgers not being included:

FAMILIES WITH CHILDREN IN SPECIFIED AGE GROUPS, AND OF DEPENDENTS, BY AND RACE.

Children 16 years of age and over.				Children 14 and 15 years of age.		Children under 14 years of age.		Dependents.	
Males.		Females.							
Number of families having.	Per cent of all families.	Number of families having.	Per cent of all families.	Number of families having.	Per cent of all families.	Number of families having.	Per cent of all families.	Number of families having.	Per cent of all families.
381	48.4	407	51.7	610	77.5	595	75.6	25	3.2
29	34.9	38	45.8	48	57.8	55	66.3	5	6.0
8	29.6	13	48.1	19	70.4	22	81.5	....	....
3	37.5	6	75.0	5	62.5	6	75.0	1	12.5
69	44.8	79	51.3	127	82.5	124	80.5	4	2.6
32	41.6	39	50.6	62	80.5	58	75.3	5	6.5
1	100.0	....	....	1	100.0	1	100.0	....	....
....	....	....	....	1	100.0	1	100.0	....	....
1	50.0	1	50.0	1	50.0	2	100.0	....	....
114	42.2	138	51.1	216	80.0	214	79.3	10	3.7
38	49.4	40	51.9	62	80.5	59	76.6	5	6.5
24	40.7	36	61.0	46	77.9	40	67.8	....	....
163	55.1	200	67.6	228	77.0	218	73.6	6	2.0
61	52.1	74	63.2	86	73.5	79	67.5	3	2.6
14	28.0	17	34.0	43	86.0	41	82.0	2	4.0
92	44.2	94	45.2	178	85.6	180	86.5	7	3.4
63	46.7	65	48.1	115	85.2	119	88.1	1	0.7
26	47.3	20	36.4	49	89.1	46	83.6	1	1.8
481	48.2	546	54.8	807	80.9	782	78.4	25	2.5
1,005	47.0	1,129	52.8	1,681	78.7	1,646	77.0	65	3.0

come to this country, and sufficient time had not yet elapsed to cause severe disintegration in the family membership. Moreover, the families of the more recent immigrant races are for the most part of a younger age. This is indicated by a comparison of the data of the table relating to the children. With the families of the foreign-born Italian and Slavic races the proportion of children of 16 years of age and over is well below the average for all families, whereas the reverse is true in the case of the children under 16 years of age.

A further analysis of the composition of the families concerned is made in the table following, which classifies the several families according to the nativity and race of father and shows the total and average number of children of the specified age groups in families having such children, the total and average number of dependents in families having such persons, and the total and average membership of all families.

NUMBER OF FATHERS AND MOTHERS LIVING WITH FAMILIES. NUMBER OF FAMILIES AND AVERAGE PER FAMILY OF SUCH CHILDREN AND DEPEND

Nativity and race of head of family.	Number of families.	Parents.		Children 16 years of age and over.					
				Male.			Female.		
		Fathers living with family.	Mothers living with family.	Number of families having.	Number of such children.	Average per family.	Number of families having.	Number of such children.	Average per family.
Native born of native parents:									
White	787	608	764	381	527	1.4	407	580	1.4
Colored	83	56	82	29	41	1.4	38	53	1.4
Native born of foreign parents:									
English	27	21	27	8	13	1.6	13	18	1.4
French	8	6	8	3	4	1.3	6	8	1.3
German	154	131	153	69	97	1.4	79	100	1.3
Irish	77	63	74	32	51	1.6	39	55	1.4
Italian, South	1	1	1	1	1	1.0	....	....	....
Polish	1	1	1	....	....	....	....	....	....
Other races	2	2	2	1	3	3.0	1	1	1.0
Total	270	225	266	114	169	1.5	138	182	1.3
Foreign born:									
English	77	63	76	38	54	1.4	40	65	1.6
French	59	55	56	24	32	1.3	36	49	1.4
German	296	222	292	163	243	1.5	200	287	1.4
Irish	117	86	112	61	101	1.7	74	124	1.7
Italian, South	50	48	47	14	17	1.2	17	20	1.2
Polish	208	189	204	92	137	1.5	94	118	1.3
Other Slavs	135	125	134	63	76	1.2	65	81	1.2
Other races	55	46	54	26	38	1.5	20	24	1.2
Total	997	834	975	481	698	1.4	546	768	1.4
Grand total	2,137	1,723	2,087	1,005	1,435	1.4	1,129	1,583	1.4

Examination of the last column of this table offers some interesting racial comparisons as regards the size of the natural family. Excluding, as before, the native-born French, Italian, and Polish because of the paucity of their representation, it appears that the American colored shows the smallest sized family, the average membership being only 5.2, as against a general average of 6.3. The American white, with 6.1 members per family, falls slightly below the general average, while each of the foreign-born races except the French has a membership higher than the average. The French families have a low average, both among the foreign and native born. The Polish families with foreign-born heads have decidedly the largest average membership, with the other Slavic races second. The Irish and German, both native and foreign born, are at or above the general average of family membership.

In regard to the remaining data of this table, it is to be emphasized that the data in the columns showing the average number of children

WITH CHILDREN IN SPECIFIED AGE GROUPS AND WITH DEPENDENTS, NUMBER
ENTS AND OF TOTAL FAMILY MEMBERS, BY NATIVITY AND RACE.

Children 14 and 15 years of age.			Children under 14 years of age.			Dependents.			Total family members.	Average members per family.
Number of families having.	Number of such children.	Average per family.	Number of families having.	Number of such children.	Average per family.	Number of families having.	Number of such persons.	Average per family.		
610	676	1.1	595	1,619	2.7	25	27	1.1	4,801	6.1
48	55	1.1	55	142	2.6	5	5	1.0	434	5.2
19	23	1.2	22	63	2.9	....	....	....	165	6.1
5	5	1.0	6	12	2.0	1	1	1.0	44	5.5
127	142	1.1	124	350	2.8	4	4	1.0	977	6.3
62	66	1.1	58	175	3.0	5	6	1.2	490	6.4
1	1	1.0	1	1	1.0	....	....	....	5	5.0
1	1	1.0	1	3	3.0	....	....	....	6	6.0
1	1	1.0	2	7	3.5	....	....	....	16	8.0
216	239	1.1	214	611	2.9	10	11	1.1	1,703	6.3
62	74	1.2	59	157	2.7	5	5	1.0	494	6.4
46	52	1.1	40	89	2.2	....	....	....	333	5.6
228	258	1.1	218	624	2.9	6	8	1.3	1,934	6.5
86	93	1.1	79	259	3.3	3	3	1.0	778	6.6
43	51	1.2	41	142	3.5	2	2	1.0	327	6.5
178	207	1.2	180	610	3.4	7	7	1.0	1,472	7.1
115	131	1.1	119	372	3.1	1	1	1.0	920	6.8
49	58	1.2	46	143	3.1	1	1	1.0	364	6.6
807	924	1.1	782	2,396	3.1	25	27	1.1	6,622	6.6
1,681	1,894	1.1	1,646	4,768	2.9	65	70	1.1	13,560	6.3

and dependents per family refer to the average for the families having such children and dependents, and not to the total number of families concerned.

The condition as regards employment of the family members, classified above by number, is exhibited in the next table, the families being grouped as before according to the nativity and race of the father. This table shows the number of fathers contributing to the family support and the percentage such number bears to the total number living with their families, similar data for the mother, and for the children of each specified age group, the number of families having such children at work, the percentage such number bears to all the families having children of the specified age, the number of such children at work, and the percentage importance of this number in relation to the total number of such children.

NUMBER AND PER CENT OF FATHERS AND MOTHERS CONTRIBUTING TO THE NATIVITY

Nativity and race of head of family.	Fathers contributing to family support.		Mothers contributing to family support.		Children 16 years of age and over at work.			
					Males.			
	Number.	Per cent of fathers living with family.	Number.	Per cent of mothers living with family.	Number of families having.	Per cent of all families with males 16 years and over.	Number of such children.	Per cent of all male children 16 years and over.
Native born of native parents:								
White	585	96.2	115	15.1	375	98.4	515	97.7
Colored	54	96.4	56	68.3	28	96.6	38	92.7
Native born of foreign parents:								
English	20	95.2	7	25.9	6	75.0	12	92.3
French	6	100.0	....	....	2	66.7	3	75.0
German	129	98.5	16	10.5	67	97.1	92	94.8
Irish	58	92.1	14	18.9	31	96.9	44	86.3
Italian, South	1	100.0	....	....	1	100.0	1	100.0
Polish	1	100.0	....	....	....	....	....	....
Other races	2	100.0	....	....	1	100.0	3	100.0
Total	217	96.4	37	13.9	108	94.7	155	91.7
Foreign born:								
English	58	92.1	7	9.2	35	92.1	50	92.6
French	53	96.4	5	8.9	24	100.0	31	96.9
German	199	89.6	33	11.3	163	100.0	239	98.4
Irish	74	86.0	14	12.5	61	100.0	100	99.0
Italian, South	47	97.9	7	14.9	14	100.0	17	100.0
Polish	183	96.8	7	3.4	91	98.9	133	97.1
Other Slavs	119	95.2	4	3.0	59	93.7	68	89.5
Other races	45	97.8	6	11.1	26	100.0	38	100.0
Total	778	93.3	83	8.5	473	98.3	676	96.8
Grand total	1,634	94.8	291	13.9	984	97.9	1,384	96.4

It would appear from these data that almost 95 per cent of the fathers living at home were at work and contributing to the family support, and that with the exception of the Irish the families of the several races do not exhibit any marked variation from the average (native-born French, Italian, and Polish being excluded from consideration, as before, because of paucity of numbers). In the case of the mothers, however, the situation is very different. In total only 13.9 per cent of the mothers living with their families were engaged at lucrative work, and this proportion varies markedly with the several races. The proportion of contributing mothers in American white families is near the average of the total. With the American colored families, however, the mother was a contributing member in no less than 68.3 per cent of the families of this race. At the other extreme, the Slav families with foreign-born heads show an extremely small proportion of contributing mothers, 3.4 per cent in the case of the Poles and 3 per cent in the case of the other Slavs.

FAMILY SUPPORT AND OF CHILDREN IN SPECIFIED AGE GROUPS AT WORK, BY AND RACE.

Children 16 years of age and over at work.				Children 14 and 15 years of age at work.				Children under 14 years of age at work.			
Females.											
Number of families having.	Per cent of all families with females 16 years and over.	Number of such children.	Per cent of all female children 16 years and over.	Number of families having.	Per cent of all families with children 14 and 15 years.	Number of such children.	Per cent of all children 14 and 15 years. of age.	Number of families having.	Per cent of all families with children under 14 years.	Number of such children.	Per cent of all children under 14 years of age.
329	80.8	457	78.8	572	93.8	614	90.8	84	14.1	95	5.9
30	78.9	44	83.0	42	87.5	47	85.5	12	21.8	14	9.9
13	100.0	16	88.9	18	94.7	19	82.6	3	13.6	3	4.8
5	83.3	7	87.5	5	100.0	5	100.0	....	....	....	....
60	75.9	76	76.0	113	89.0	121	85.2	11	8.8	12	3.4
33	84.6	44	80.0	52	83.9	55	83.3	6	10.3	6	3.4
....	....	....	....	1	100.0	1	100.0	....	....	....	....
....	....	....	....	1	100.0	1	100.0	....	....	....	....
1	100.0	1	100.0	1	100.0	1	100.0	....	....	....	....
112	81.2	144	79.1	191	88.4	203	84.9	20	9.3	21	3.4
36	90.0	55	84.6	57	91.9	64	86.5	5	8.5	5	3.2
31	86.1	41	83.7	43	93.5	49	94.2	1	2.5	1	1.1
162	81.0	240	83.6	211	92.5	222	86.0	16	7.3	19	3.0
64	86.5	98	79.0	75	87.2	80	86.0	8	10.1	8	3.1
12	70.6	14	70.0	42	97.7	47	92.2	8	19.5	8	5.6
78	83.0	90	76.3	172	96.6	192	92.8	11	6.1	11	1.8
61	93.8	70	86.4	109	94.8	124	94.7	10	8.4	11	3.0
14	70.0	17	70.8	48	98.0	54	93.1	4	8.7	4	2.8
458	83.9	625	81.4	757	93.8	832	90.0	63	8.1	67	2.8
929	82.3	1,270	80.2	1,562	92.9	1,696	89.5	179	10.9	197	4.1

The situation as regards the employment of male children 16 years of age and over is very closely similar to that of the fathers. There were very few such persons not at work, less than 4 per cent of the total, and still fewer families having children of this age in which one or more such children were not at work, only 2.1 per cent of the total. With the female children 16 years of age and over, however, employment was much less usual. Of the total of 1,583 females of this age group (see preceding table) only 1,270 were at work, but the variations in this respect among the several races are not sufficient to be significant.

Considering next the employment of children 14 and 15 years of age, the number and proportion shown to be at work is, of course, without significance so far as absolute amount is concerned. As the great majority of families visited were visited because the children under 16 were at work, and, as a rule, the children under 16 at work were of the specific ages of 14 and 15, it follows as a natural result that the data obtained would show a very large percentage of children 14 and 15 at work. Especially is this to be expected when it is remembered that it is unusual for there to be more than one child of these ages in any one family. For comparison between races, however, the information of the table is pertinent. Thus it may be observed that while the percentage of children 14 and 15 years of age at work in American white families (90.8 per cent) is very close to the percentage for all children at work (89.5 per cent), the proportions of such children at work in the English, Irish, and German families, of both native and foreign nativity, are well below the average, and those in families of the more recent immigrant races—Italian, Polish, and other Slav—show a proportion well above the average.

In the case of the children under 14 years of age at work the number concerned is insufficient to render the percentage comparison between races of much value. The figures given, however, are sufficient to show that the working of children under 14 is comparatively unusual among these families, a total of 4.1 per cent being found at work.

CONTRIBUTIONS TO FAMILY INCOME: AVERAGE NET INCOME FOR ALL FAMILIES
GROUPS AT WORK; AVERAGE CONTRIBUTIONS BY SUCH MEMBERS, AND PER CENT

[In this table the full amount of the earnings of the parents and of children under 16 at work are
work only the average of the actual

Nativity and race of head of family.	Total number of families.	Average net income per family.	Fathers at work.			Mothers at work.		
			Average net income per family. having.	Average earnings of fathers.		Average net income per family having.	Average earnings of mothers.	
				Amount.	Per cent of net family income.		Amount.	Per cent of net family income.
Native born of native parents:								
White	787	$839	$919	$537	58.4	$593	$146	24.6
Colored	83	663	745	391	52.4	600	167	27.8
Native born of foreign parents:								
English	27	837	936	612	65.4	518	116	22.4
French	8	1,035	1,159	854	73.7	....	....	....
German	154	934	997	603	60.5	722	119	16.5
Irish	77	863	910	600	65.9	622	203	32.7
Italian, South	1	235	235	125	53.2	....	....	....
Polish	1	676	676	500	74.0	....	....	....
Other races	2	866	866	321	37.0	....	....	....
Total	270	903	967	605	62.6	645	150	23.3
Foreign born:								
English	77	965	1,083	609	56.3	559	137	24.5
French	59	1,000	1,050	567	54.0	785	140	17.9
German	296	924	1,009	532	52.8	734	150	20.4
Irish	117	843	921	501	54.4	593	212	35.7
Italian, South	50	787	787	387	49.1	589	146	24.8
Polish	208	777	799	401	50.2	562	184	32.8
Other Slavs	135	808	841	405	48.1	459	115	25.1
Other races	55	947	1,010	603	59.7	556	145	26.1
Total	997	870	920	482	52.4	646	159	24.7
Grand total	2,137	855	920	515	56.0	616	154	25.1

FAMILY INCOME AND CONTRIBUTIONS OF MEMBERS.

The average net income of the 2,137 families scheduled, for the year prior to the date of the scheduling of each, was $855, the variation between races being very considerable. The degree in which the different members of the several families contributed to the family income is shown in summary form in the following table. The table shows for each nativity and race and in total the total number of families concerned and the average net income per family, the average net income of families having fathers at work, the average earnings of such fathers, and the percentage which such earnings form of the total net income of the families with fathers at work; and for families with mothers and children of the specified age groups at work corresponding information is presented, with the exception that in the case of children of 16 years of age and over the contribution of such children to the family income is given instead of earnings, a number of such children not contributing their full earnings to the family support.

AND FOR FAMILIES WITH FATHERS, MOTHERS, AND CHILDREN IN SPECIFIED AGE OF SUCH CONTRIBUTIONS OF NET FAMILY INCOME, BY NATIVITY AND RACE.

assumed to have been available for the family support, while for children 16 years of age and over at amounts contributed is shown.]

Children 16 years of age and over at work.						Children 14 and 15 years of age at work.			Children under 14 years of age at work.		
Males.			Females.								
Average net income per family having.	Average contribution to family fund.		Average net income per family having.	Average contribution to family fund.		Average net income per family having.	Average earnings of such children.		Average net income per family having.	Average earnings of such children.	
	Amount.	Per cent of net family income.		Amount.	Per cent of net family income.		Amount.	Per cent of net family income.		Amount.	Per cent of net family income.
$969	$343	35.4	$867	$224	25.8	$863	$168	19.5	$811	$132	16.3
890	280	31.5	745	232	31.2	687	170	24.8	613	72	11.7
1,012	430	42.5	873	240	27.5	875	166	18.9	682	117	17.2
1,404	472	33.6	1,262	225	17.8	865	172	19.8	....	....	....
1,107	386	34.8	947	233	24.6	957	162	16.9	754	126	16.7
944	339	36.0	886	252	28.4	852	150	17.6	652	94	14.3
235	50	21.3	....	....	....	235	50	21.3	....	....	....
....	....	....	....	....	....	676	176	26.0	....	....	....
990	436	44.0	990	230	23.2	741	220	29.7	....	....	....
1,051	374	35.6	934	239	25.6	912	159	17.4	713	115	16.1
1,138	435	38.2	850	290	34.1	968	167	17.3	924	117	12.6
1,236	438	35.5	1,033	240	23.2	1,007	177	17.5	507	50	9.9
1,052	437	41.5	960	282	29.4	922	158	17.1	856	125	14.6
1,038	442	42.6	1,006	292	29.0	769	130	17.0	745	59	7.9
1,191	534	44.8	691	168	24.2	828	198	24.0	664	131	19.7
974	414	42.5	888	217	24.5	766	158	20.6	793	75	9.5
1,029	390	37.9	901	215	23.9	819	158	19.3	482	159	33.0
1,091	360	33.0	986	237	24.0	934	167	17.9	654	114	17.4
1,054	426	40.4	936	257	27.4	860	160	18.6	734	112	15.2
1,017	384	37.8	905	242	26.7	863	163	18.9	759	119	15.7

Although the families of this table are classified by nativity and race of the father, the resulting data are not, in all cases, subject to accurate comparisons. This is due to the fact that the 2,137 families concerned were geographically of wide distribution, and in certain cases there occurred a more or less well-marked localization of races in communities or districts of distinct wage levels. Thus the American colored families scheduled were largely in the Southern States, where the general wage level is lower than it is in, say, the Pittsburg district, where the Slav families scheduled were largely concentrated.

This fact lessens the comparative value of the figures in the second column of this table, in which is shown the average net family income of the several racial groups. It does not affect, however, the data showing the percentage importance of the contributions of each group of members to the total family incomes, nor does it affect the significance of the comparison between the groups of families of different membership. Thus it is of much interest to note that while the average net income of all the families concerned is $855, that for families in which there are males over 16 at work is $1,017; that in which children under 14 are at work is only $759; and that in which mothers are at work is only $616. This is the case, moreover, not only with the totals, but with extremely few exceptions, also with each individual race. The families in which the mothers are at work are those of smallest income, those in which children under 14 are at work are of the next smallest income, and those which have male children 16 years of age and over at work are in the best financial position.

Considering next the actual and proportionate importance of the contributions of the several members, it will be noted that in those families in which the fathers are at work the average annual contribution of such fathers is $515, an amount which forms 56 per cent of the total income of such families. This proportion varies somewhat markedly among several of the races concerned. Excluding as before the native-born French, Italian, and Polish, because of paucity of numbers, it will be noted that among the Italian and Slav families of foreign-born heads the percentage of the father's contributions is lowest—49.1 per cent with the Italians, 50.2 per cent with the Poles, and 48.1 per cent with the other Slavs. The percentage rises highest with the English (65.4 per cent), German (60.5 per cent), and Irish (65.9 per cent), native born of foreign parents, and is, on the whole, considerably higher among the native born of foreign parentage than among the foreign born.

The average earnings of mothers are low—$154 for all families—less, it may be noted, than the average earnings of children 14 and 15 years of age. So low, however, is the total average income of families having mothers at work that their average earnings form

25.1 per cent of the total income of such families. When distributed by race, the number of mothers at work is too small to render comparisons of any value. Variations in this respect, however, are in no case great.

While the earnings of the father, mother, and younger children of a family are almost always exactly synonymous with their contributions to the family income, such is not the case with the older children, those 16 years of age and over. In some families the older children regard their whole earnings as part of the general family income, but in others the adult children contribute only a portion of their earnings to the household expenses. The importance of this fact is shown in the next table, which shows, for each nativity and race group, the average earnings of male and female children 16 years of age and over, and the proportion of such earnings which the children of each sex contributes to the family fund.

PERCENTAGES OF CONTRIBUTION TO THE FAMILY FUNDS BY CHILDREN 16 YEARS OF AGE AND OVER AND THEIR AVERAGE EARNINGS AND CONTRIBUTIONS DURING THE YEAR, BY SEX OF CHILDREN AND NATIVITY AND RACE OF HEADS OF FAMILIES.

Nativity and race of head of family.	Number of families with—		Average earnings of—		Average amount paid to family by—		Per cent of earnings given family by—	
	Male wage-earners in this age group.	Female wage-earners in this age group.	Males.	Females.	Males.	Females.	Males.	Females.
Native born of native parents:								
White	375	329	$369	$198	$250	$161	67.8	81.2
Colored	28	30	284	174	206	158	72.7	91.0
Native born of foreign parents:								
English	6	13	302	225	215	195	71.2	86.6
French	2	5	315	202	315	161	100.0	79.5
German	67	60	360	202	281	184	78.1	91.0
Irish	31	33	378	244	239	189	63.2	77.5
Italian, South	1	....	50	....	50	....	100.0	....
Polish	....	....	....	....	....	....	....	....
Other races	1	1	208	230	145	230	69.9	100.0
Total	108	112	355	218	260	186	73.5	85.4
Foreign born:								
English	35	36	351	217	304	190	86.8	87.3
French	24	31	412	194	339	182	82.3	93.8
German	163	162	377	216	298	190	79.0	88.1
Irish	61	64	376	217	270	190	71.6	88.0
Italian, South	14	12	461	144	439	144	95.9	100.0
Polish	91	78	357	196	283	188	79.3	96.0
Other Slavs	59	61	342	192	338	187	98.7	97.3
Other races	26	14	374	229	249	195	66.5	84.9
Total	473	458	371	208	298	188	80.4	90.5
Grand total	984	929	366	204	273	177	74.6	86.4

It appears from this table that there is considerable difference between the sexes in the matter of the percentage of earnings contributed to the family support and also some noticeable differences in this respect between the different races. For the families as a whole the adult female children contribute a much greater portion of their earnings to their families than do the adult male children, 86.4 per cent as against 74.6 per cent. This, it will be observed, is also true for each of the races except those grouped as other Slavs. The older female children, when they do remain at home, normally do not acquire the same economic independence of their families as do the older sons, and, in consequence, are less likely to retain any portion of their earnings for their direct personal disposal. The exceptional instance of the "other Slavs," among whom the contributions of the males are slightly greater than those of the females, is a result simply of the fact that with the Slav, as indeed with the Italian, the older child, unless it marries or leaves home, acquires little financial independence. It is a racial custom for the mother of the household to act as treasurer, as it were, for the whole family, and to receive the earnings of each working member, even though such earnings may occasionally be returned to the older children.

Furthermore, it is of interest to note that the adult male children of American white families contribute less of their earnings to the family (67.8 per cent) than do those of families of whom the head is native born of foreign parents (73.5); and that these, in turn, contribute less than in the families with foreign-born fathers (80.4 per cent).

CHAPTER XXI.

WOMEN AND CHILDREN AT WORK AND THEIR FAMILY CONDITION.

CHAPTER XXI.

WOMEN AND CHILDREN AT WORK AND THEIR FAMILY CONDITION.

MARRIED WOMEN AT WORK, THEIR EARNINGS, AND THEIR FAMILY CONDITION.

The term married woman at work is here used to mean a married woman engaged at a money-earning employment, whether such employment is outside the home, as factory work, or in the home, such as domestic washing and sewing. Married women thus employed fall into two broad classes: First, women living as maternal heads of households; and, second, women living in homes other than their own, and of which, in consequence, they are not the heads. The two classes offer so many points of dissimilarity that it is necessary to consider them entirely separately.

MARRIED WOMEN AT WORK, LIVING AS HEADS OF FAMILIES.

In 2,087 (97.7 per cent) of the 2,137 families visited, mothers were found living at home as maternal heads of their households. In 291 of these 2,087 families (13.9 per cent) the mother was employed at financially lucrative work. On a preceding page (p. 522) the racial distribution of the mothers at work was given, and it was noted that with the exception of the American colored families, in which the mother was at work in almost 70 per cent of the cases scheduled, the racial distribution of such mothers was not of especial significance.

The situation of these 291 married women as regards the condition of the husband is shown in the following table. It is seen that in 59.8 per cent of the instances in which married women were at work no contribution to the family support was received from the husband. In three cases (1 per cent of the total) the fact of his not contributing was due to his unjustifiable failure to work, but in the remaining 58.8 per cent the husband, whether through decease, desertion, divorce, or incapacity, had ceased to be a possible contributor to the family support.

The financial condition of each of these 291 families is exhibited briefly in the same table, which classifies the families according to the condition of the husband, and shows, for each class and in total, the number of families concerned, the average size of family, the average gross income per family, the average earnings of wives, the per capita weekly income (excluding earnings of wives), and, finally, the number and per cent of families receiving a per capita weekly income (excluding earnings of wives) of less than $1.50 and less than $2, respectively.

AVERAGE SIZE AND EARNINGS OF FAMILIES OF MARRIED WOMEN AT WORK, BY CONDITION AS TO HUSBAND.

Condition as to husband.	Families.			Average annual family income.	Average annual earnings of wives.	Average per capita weekly income, excluding earnings of wives.	Families having per capita weekly income, excluding earnings of wives, of less than—			
							$1.50.		$2.	
	Number.	Per cent of total.	Average size.				Number.	Per cent.	Number.	Per cent.
Widows	113	38.9	4.5	$629	$169	$1.99	43	38.1	68	60.2
Deserted and divorced wives	46	15.8	4.1	561	182	1.79	20	43.5	31	67.4
Wives of incapacitated husbands	12	4.1	4.9	521	201	1.26	7	58.3	9	75.0
Wives of idle husbands	3	1.0	5.0	588	193	1.52	2	66.7	3	100.0
Wives with husbands at work	117	40.2	5.9	772	122	2.10	38	32.5	57	48.7
Total	291	100.0	5.0	671	154	1.98	110	37.8	168	57.7

The data of this table indicate that the families in which the mothers were at work were families in which, for the most part, acute economic pressure existed. Accepting a per capita weekly income of $2 as being a minimum below which a normal family can not maintain itself in even the necessaries of comfortable living, it appears that the average per capita weekly income of the 291 families, excluding the earnings of the mother, was $1.98; that 168 families, or 57.7 per cent of the total, were actually in receipt of a less per capita weekly income (excluding earnings of mothers) than $2, and with 110 families, or 37.8 per cent, such per capita income was less than $1.50. With families of such low income the economic importance of the mothers' contributions, although small ($154 per year on the average), is of very evident importance.

That the incomes of the families listed above were relatively as well as absolutely low may be shown by contrasting the financial situation of those families in which the mothers were at work with those scheduled families in which the mothers were at home but were not at work. For this purpose, however, it is desirable and sufficient to limit the comparison to the families of certain selected communities.

The number of families visited in the eight selected communities was 1,151. The total number of such families in which the mother was at home and living as its maternal head was 1,113. Of the 1,113 mothers thus represented 140 were employed at some form of lucrative work and 973 were not so employed. The following table classifies separately these two groups of families by per capita weekly income, the earnings of married women at work being excluded, in order to make the data precisely comparable:

CLASSIFIED PER CAPITA WEEKLY INCOME, EXCLUDING EARNINGS OF MOTHERS, OF FAMILIES WITH MOTHERS AT WORK AND NOT AT WORK, IN 8 SELECTED COMMUNITIES.

Per capita weekly income, excluding earnings of mothers at work.	Families with mothers—			
	At work.		Not at work.	
	Number.	Per cent.	Number.	Per cent.
Less than $1.50	56	40.0	89	9.1
$1.50 and less than $2.00	27	19.3	134	13.8
$2.00 and less than $2.50	22	15.7	139	14.3
$2.50 and less than $3.00	9	6.5	145	14.9
$3.00 and less than $3.50	10	7.2	126	13.0
$3.50 and less than $4.00	3	2.1	91	9.4
$4.00 and less than $4.50	3	2.1	82	8.4
$4.50 and less than $5.00	3	2.1	53	5.4
$5.00 and over	7	5.0	114	11.7
Total	140	100.0	973	100.0

The difference in the degree of well-being of these two groups of families is extremely marked. While 77.1 per cent of the families with mothers not at work were above the $2 weekly per capita standard and 62.8 per cent above $2.50, only 40.7 per cent of the families with the mothers at work would have had per capita weekly incomes above $2 if the mother had not worked, and only 25 per cent, under such circumstances, would have had per capita weekly incomes of as much as $2.50.

With families in which the number of members, and particularly the number of children, is small the mothers are normally less confined with household duties, and are thus at greater liberty to employ themselves at lucrative work. With the families now being considered, however, the size of the family and the number of children therein did not appear to be a factor of importance in determining the mother to become a money earner. This is shown in the following table, which gives the average number of children under 16 years of age per family and the average number of members for families in which the mother is at work and for those in which the mother is not at work. Separation is made between families having the father as a possible contributor and those in which the father is no longer able to contribute to the family support. Between these two classes of families there are important differences which should be recognized in discussion.

AVERAGE NUMBER OF CHILDREN UNDER 16 AND AVERAGE NUMBER OF MEMBERS PER FAMILY WITH WIVES AT WORK AND NOT AT WORK, BY CONDITION AS TO HUSBAND, IN 8 SELECTED COMMUNITIES.

	Number of families.	Average number per family of—	
		Children under 16 years of age.	Members.
Husbands able to contribute:			
Wives at work	46	3.6	6.4
Wives not at work	799	3.3	6.8
Husbands not able to contribute:			
Wives at work	94	2.2	4.3
Wives not at work	174	1.7	5.2
Total	1,113	....	....

Thus while on the average the membership of those families in which the mothers are at work is somewhat smaller than those in which the mothers are not at work the difference is not significant. And, moreover, the number of children under 16 years of age is greater in those families in which the mothers are at work.

It may be concluded, therefore, that among the families now being considered the financial incentive is one of dominant importance in influencing mothers of families to become money earners. The mother seldom becomes a money earner except when the income of the family is unduly low, and when she does so act it is regarded largely as a temporary measure, to be discontinued when the acute pressure ceases. This latter fact is evident from an examination of the character of the work engaged in by these women. For the most part their employment was casual, usually of a character which permitted its being done at home—washing, sewing, etc. In a few cases a small store was being conducted on the first floor of the house, and this the mother attended in part, as did also other members of the family when otherwise unemployed. When the mother worked outside the home it was usually as general charwoman or at other similar work which did not occupy her full time or require the keeping of specific hours. It was only rarely that a regular position, such as that of a factory worker, was held by the wife, and then, as a rule, only when the family was in especial poverty. These facts are shown in detail in the following table which classifies mothers at work in the eight selected communities according to the character of their employment. Classification is also made of the several families according to the per capita weekly income, excluding the earnings of mothers and of children in families in which there were children.

CHARACTER OF EMPLOYMENT OF MOTHERS, BY CLASSIFIED PER CAPITA WEEKLY INCOME OF FAMILIES, IN 8 SELECTED COMMUNITIES.

Employment of mother.	Families with per capita weekly income of—							
	Less than $2.		$2 and less than $4.		$4 and over.		Total.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent	Number.	Per cent.
At home:								
Washing and sewing	53	50.5	15	55.6	3	37.5	71	50.7
Storekeeper	4	3.8	1	3.7	4	50.0	9	6.4
Total	57	54.3	16	59.3	7	87.5	80	57.1
Outside the home:								
Irregular	29	27.6	6	22.2	1	12.5	36	25.7
Regular—Factory	16	15.2	5	18.5	......	......	21	15.0
Regular—Other	3	2.9	......	......	......	......	3	2.2
Total	48	45.7	11	40.7	1	12.5	60	42.9
Grand total	105	100.0	27	100.0	8	100.0	140	100.0

It is to be noted that eight of the families with mothers listed in this table as being employed at factory work represent cases in which the family was visited and scheduled solely because the mother was found at work in the glass industry, no other women and no children of the family being there employed. These eight cases might very properly be excluded for the present purpose, but even with their inclusion the data of the table are highly significant. Thus it appears that of the 140 mothers at work 80 (57.1 per cent) engaged only in such work as could be done at home; and that only 24 (17.2 per cent of the total) of mothers employed outside the home had regular fixed employment.

Moreover, examination of the income distribution of the families in which these mothers were at work shows that 75 per cent of all the mothers at work were in families in which the per capita weekly income, excluding earnings of mothers and children, was under $2, and 94.3 per cent in families in which such income was less than $4 per week. It may also be noted that of the eight mothers living in families in which the per capita weekly income was as much as $4 per week none were employed at factory or other regular work outside the home, and that in four of these cases the mother's work was limited to tending a family store, work which was not directly remunerative to herself personally.

It may be accepted that, among the families now being considered, the employment at lucrative work of a married woman, living as the maternal head of a household, is almost entirely a matter of economic compulsion. Usually the mother works only as a result of family need; to assist the family when poverty presses, not simply to raise the standard of living, as is so often the case in the matter of child labor. This being so, it is of interest to inquire more fully than has been done into the general character of the families in which mothers were found at work, with the purpose of ascertaining, first, in what degree these families may have been abnormal; and, second, whether the low income, which leads directly to the mother's working, was due to the evident fault of the family itself or was the result of outside circumstances.

Concerning the first of these points it may be repeated that these families were abnormal in at least one respect, the degree in which the husband of the mother was no longer a possible contributor to the family income. This is developed in the following table, which contrasts upon this point, for the selected communities, the 140 families in which the mother was at work with the 973 families in which the mother was at home, but was not working for money.

CONDITION AS TO HUSBAND OF FAMILIES WITH MOTHERS AT WORK AND NOT AT WORK, IN 8 SELECTED COMMUNITIES.

Condition of husband.	Families with mother—			
	At work.		Not at work.	
	Number.	Per cent.	Number.	Per cent.
Dead	61	43.6	103	10.6
Divorced, deserted, separated	25	17.9	16	1.6
Incapacitated	8	5.7	34	3.5
Idle	2	1.4	8	.8
At work	44	31.4	812	83.5
Total	140	100.0	973	100.0

The difference between the two groups of families as regards the condition of the husband is most marked. In the case of families with the mother not at work only 10.6 per cent of the husbands were dead as against 43.6 per cent in families in which the mother was at work; and, in the first group, only 32.8 per cent of husbands were at work or at home and able to work as against no less than 84.3 per cent in the second group.

The importance of the fact pointed out is clear. The absence from a family of a father able to contribute to its support in itself tends toward economic distress. Usually it means the withdrawal of the most responsible, if not the most important, contributor to the family support, and always it tends to change the economic organization of the family. A more intimate analysis of the 140 families in which the maternal head was at work, from the standpoint of family composition, is, therefore, of interest.

Such an analysis may conveniently divide the 140 families into four classes, the basis of division being the presence or absence of adult members other than the mother able to contribute to the family support. The four classes are shown in the following table, which further distributes the families concerned according to their per capita weekly incomes, excluding the earnings of mothers and children:

CLASSIFIED PER CAPITA WEEKLY INCOME, EXCLUDING EARNINGS OF MOTHER AND CHILDREN UNDER 16, OF FAMILIES HAVING AND NOT HAVING OTHER MEMBERS ABLE TO CONTRIBUTE, IN 8 SELECTED COMMUNITIES.

Members other than mother and children under 16 years of age able to contribute.	Number of families.	Families having per capita weekly income, excluding earnings of mother and children under 16 years of age, of —					
		Less than $1.50.		Less than $2.		Less than $2.50.	
		Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
None	36	36	100.0	36	100.0	36	100.0
Females (but no males)	25	13	52.0	20	80.0	22	88.0
Males (except father)	33	11	33.3	15	45.5	19	57.6
Father	46	27	58.7	34	73.9	37	81.4
Total	140	87	62.1	105	75.0	114	81.4

The later groups in this table are not exclusive of the preceding. Thus, while the first group consists of families with no members, except the mother and children under 16 able to contribute to the family support, and the second group of families with no adults of any kind, the third group of families with adult males other than father may also include females, and the fourth group of families, with fathers able to contribute, may include both other adult males and females.

The first of these classes of families, constituting approximately one-fourth of the total number of famiiles concerned, is very clearly marked. In each of those families there are children under 16 years of age, but no other possible contributors to the family support except the mother. In six of these families other sources of income except personal labor exist, but in none of these cases was the amount of income from outside sources of a greater per capita weekly income value than 50 cents. Therefore, with each of these families the mother or the children or both must work or depend upon some form of charity.

The second group of families, in which the only adult members except the mother able to contribute are females, is also clearly marked. There are 25 families in this group. In 21 of these 25 there is only one such adult female; in the remaining 4 families there are two each. The earnings of females in the selected communities almost never exceed an average of $1 a day. It is evident, therefore, that the unaided earnings of the adult females of these 25 families would rarely, if ever, be sufficient for family support. To avoid distressing poverty the mother or children or both must work, unless there are other outside sources of income. Such sources existed in five instances, but the weekly per capita value of the incomes derived therefrom was, in the instance when it was greatest, only $1.40

(from life insurance of father) and in the other four instances was well below $1.

With this group of familes, therefore, the economic necessity of the mother's and children's working can be presumed for the great majority of the families. As shown by the table, 20 of these 25 families had a per capita weekly income of less than $2 when the earnings of mothers and children under 16 were excluded. In other words, the only conditions under which such families, without the mother's aid, could have received an income sufficient to avoid poverty were that there should exist outside sources of income of considerable amount or that there should be several adult females in the family, conditions which, as has been noted, did not obtain with these families. Otherwise, even though such adult females work regularly their earnings could rarely, if ever, be sufficient to support the household. And in these particular families there was an almost entire absence of idleness among able-bodied adult females. There were 28 such persons in these 25 families, and of these 28, 24 had regular positions and missed no time except such as was due to misfortune, the average number of days worked by them being 260. Of the 4 who had not worked as regularly as possible one, 17 years of age, was attending high school, 1 had worked half a year, and each of the remaining 2 had remained at home to keep house while the mother worked outside.

From the standpoint of family income, therefore, the importance of adult male members is evident. So far as concerns mere earning capacity it is almost a matter of indifference whether such adult males are husbands or sons. The average earning capacity of the man is, among these families, very much higher than that of the woman, but the husband of a family has usually no higher earning capacity than has an older son of, say, 18 years or more. In the case of the more recent immigrant races, indeed, the son, born in this country, has a better chance than the father, who, though ignorance of the language and lack of adaptation, is usually of the most unskilled labor type. As a rule, however, the moral responsibility of the husband in the matter of family support is more clearly recognized. The son, although a regular worker, is less liable to contribute his full earnings to the household expenses than are either the daughters or the husband, and is usually less expected to do so. This fact is so far recognized by many of these families that the mother becomes a wage-earner almost as a matter of course, even although there are able-bodied adult sons in the family capable of supporting her. Thus it is seen in the table that of the fourfold grouping there made the one in which there are sons able to contribute, but no father, represent a considerably higher economic grade than do the others. Only 45.5 per cent of the families of this group have a per capita weekly income of less than $2, as against 100 per cent of the first group, 80 per cent of the second, and 73.9 per cent of the fourth.

The fourth group of families listed in the table, those in which the father is able to contribute, is of peculiar interest. It represents broadly three classes of families: First, those in which the father was shiftless or dissipated; second, those in which the father had met with injury or incapacitating sickness during the course of the year; and, third, those in which the number of members was unusualy large, the father an unskilled worker of low earning capacity with few or no adult sons to assist him.

Dissipation and shiftlessness on the part of the father was responsible for the destitute condition of 13 of 46 families of this group; the father being chronically idle in 2 cases, and working an average of only 135 days per year in the other 11. In each of these instances the labor of the wife and children were being clearly exploited. In 10 of the 46 families the father had been able to work only a small portion of the year because of sickness or injury, and the wife had gone to work only after the occurrence of his misfortune. In each of the remaining 23 familes of the group the father had been a regular worker, averaging almost 250 days during the year; but in only 6 of these cases did he rise above the grade of the unskilled laborer. In each of these 6 cases, the husband earned $3 a day or more, and in 3 he was a skilled glassworker, earning $5 or more a day. It is to be noted, however, that in only 1 of the 6 families in which the husband was a highly paid worker did the wife work outside the home, and this was a negro family. In none of the other 5 cases did the wife work for wages strictly speaking; in 4 she did no more than help in a small store conducted by the husband or sons, and in the remaining 1 she did a little home sewing while her husband, a skilled glassworker, was temporarily out of a place.

MARRIED WOMEN AT WORK, LIVING IN HOMES OTHER THAN THEIR OWN.

The second of the two classes into which married women at work have been divided—those living in homes other than their own—presents an entirely different situation from that of the former class. In the first place, such persons were comparatively few in number, a total of only 35 having been scheduled as against 291 who were living in their own homes. In the second place they were almost entirely of a single type, widows, and divorced and separated wives, who, the husbands' support having been withdrawn, were living with their parents, parents-in-law, or other near relatives. Usually these women were young in age, had been married only a few years, and, in consequence, had no older children to aid them in their support. These facts are detailed in the table following, which classifies the 35 married women at work according to the condition of the husband, and shows for each class the relationship of the woman to the families with whom they were living and the average age of such women.

FAMILY CONDITIONS OF MARRIED WOMEN AT WORK, LIVING IN HOMES OTHER THAN THEIR OWN.

Condition as to husband.	Number.	Relationship to family they live with.			Average age.	Number having children aged—			
		Daughters and daughters-in-law.	Mothers.	Sisters.		5 and under.	6 to 9.	10 to 13.	14 and over.
Widows	17	13	3	1	31.8	8	6	3	2
Deserted and divorced wives	16	16			26.3	4	6	1	1
Wives with husbands at work	2	2			20.5				
Total	35	31	3	1	28.6	12	12	4	3

It is thus seen that in 33 of the 35 listed instances the husband was dead, divorced, or deserted. In one of the two cases where the husband was at work, the woman had been married only a month and had not given up the position she held at the time of her marriage; in the other, the husband contributed but little to the wife's support although he had not actually deserted.

The reasons and opportunities for working on the part of these women are evident. In 33 of the 35 cases there were no husbands, and a complete absence of any source of income except the personal labor of the woman and her children. In only three instances, moreover, were there children as old as 14 to help in the family support. With very few exceptions, therefore, the mother was thrown upon her own responsibility; she must work or depend upon charity of some sort.

These women were almost all young, of an average age of 28.6 years, and physically able to work. Moreover, as they were all living in families of which they were not the heads, and as the number of children per family was small, they were little bound by household responsibilities, and their opportunities for regular outside employment were greater than in the case of mothers living as heads of families. Of the 35 scheduled women of this class 28 were regularly employed at factory work and 3 others had regular outside employment. Only 4 were earning money by means of work done in their own homes.

By the married woman situated as are those now being considered, and by the family with which she lived, it was usually regarded as a matter of course and of right that she should work and pay for her own and her children's "keep." This was particularly the case when the woman was young and able bodied and was living with relatives other than her own child. Thus it was found that in the 1,151 families visited in the eight selected communities no instance was found in which a married woman so situated was not working when work was not absolutely prohibited by outside circumstances, even though the income of the related family with whom she was living was ample for her support. In the case of a mother living with the family of her own child, however, the responsibility of her contributing to the family support was less generally felt, but even in this situation the feeling that, if possible, she should work and pay for her "keep" was not uncommon.

SINGLE WOMEN 16 YEARS OF AGE AND OVER AT WORK, THEIR EARNINGS, AND THEIR FAMILY CONDITIONS.

In considering the work of the women whose families were visited and scheduled during this investigation it is necessary to recall the basis upon which such families were originally selected for visiting. In every glass factory investigated a list was made of the names and addresses of all women and children found employed therein, and personal visits were then made to the homes of as many of these persons as time permitted. These women and children were not necessarily of the same families; such coincidence occurred, indeed, in less than one-third of the families visited. Moreover, all the women and children of a family, although at work, need not have been at work in the glass industry, and as a matter of fact frequently were not. While the families scheduled, therefore, were homogeneous to the extent of having one or more of its child or woman members employed in the glass industry, the working women of the families having such were not industrially homogeneous. Some two-thirds of those at work were employed in the glass industry, the remainder were engaged in numerous other employments.

Females 16 years of age and over, excluding mothers living as heads of households, were found in 1,129 of the 2,137 families visited. The total number of such persons was 1,583, 46 of whom were married and 1,537 unmarried. In every case these women were either actual daughters of the families with whom they were living or were living as adopted daughters of such families. As a result it is permissible and convenient to class all these women as adult female children, and they have been so classed in the tabulation accompanying this report and so regarded in the following discussion. The present section will be concerned solely with the unmarried women, the married women being considered in a separate section.

The distribution of the single women as regards their working and nonworking is shown in the following table. The term "at work" as here used means working at some money-earning employment outside the home.

NUMBER AND PER CENT OF SINGLE WOMEN 16 YEARS OF AGE AND OVER AT WORK AND NOT AT WORK.

	Number.	Per cent.
Females 16 years of age and over:		
At work—		
In glass industry	780	63.2
Not in glass industry	455	36.8
Total at work	1,235	80.4
Not at work	302	19.6
Total investigated	1,537	100.0

The fact that such a large proportion of these women were at work is of course not significant in itself. Approximately two-fifths of the families were specifically selected for visiting because women members thereof were at work. The remaining three-fifths were visited because their children were at work, and without previous knowledge of the women members being at work. Nevertheless it was to be expected that among families in which children of 14 and 15 years of age, of both sexes, were very generally at work, older daughters would also be at work.

Such indeed was the case in even greater degree than the above table would indicate. Thus, while the data of that table show that 302, or 19.6 per cent, of the single women 16 years of age and over were not at work, examination of the information regarding such persons discloses that practically all of them would have been at work if circumstances had permitted.

Preventing circumstances were of several kinds. Of the 302 single women reported as being unemployed, 20 were physically unable to work. In 35 cases the death, or invalidism of the mother, combined with the presence of large families, required an older daughter to remain at home. The same necessity, moreover, not infrequently arose in the case of an unusually large family, even although the mother was an active member. And, on the whole, the families in which there was an older daughter not at work were considerably larger than the families in which such daughters were at work. The average family membership of the former group was 7.2 as against a membership of 6.5 for the latter group, and no less than 56 families of the former group possessed 10 or more members each.

While, however, all of the mentioned factors were of importance in increasing the number of women not at work, the most important single factor was simply the impossibility of obtaining employment. The term "not at work" as used in the above table means only that no work was done by the person concerned during the year preceding the date of scheduling. Most of the women so reported, however, had worked during previous years and expected to work again as soon as work could be obtained.

Schooling as an alternative to working for females of 16 and over was seldom considered by the families here concerned. Female children under 16 were generally kept at school somewhat longer than male children, but it was extremely unusual for a girl to be kept in school after her sixteenth birthday. Thus of the 302 female children 16 years of age and over reported as not being at work, only 9 were at school. Family income, it may be noted, was of possible influence in these latter cases, the average weekly per capita income of those families in which adult females were at school being $3.31 as against $2.92 for the families in which no females of 16 and over were at school.

The average age of beginning work for the 1,235 scheduled single women at work was 16 years. The great majority of these persons, however, had begun work before they had reached that age, the average being raised by the fact that a few of the older women had begun work at an advanced age. Exact information upon this point was obtained from 1,141 of the 1,235 persons concerned. The following table presents this data, classifying the 1,141 women by exact ages up to 24 years, and by age groups thereafter, and showing for those of each age and age group the average number of years since beginning work.

AVERAGE YEARS SINCE BEGINNING WORK OF SINGLE WOMEN 16 YEARS OF AGE AND OVER AT WORK, BY AGE.

Age.	Number.	Number reported upon this point.	Average years since beginning work.
16 years	283	270	1.7
17 years	233	210	2.5
18 years	198	183	3.1
19 years	107	99	3.3
20 years	107	97	4.2
21 years	75	70	5.0
22 years	56	53	5.2
23 years	45	36	6.9
24 years	36	33	7.2
25 to 29 years	52	50	9.0
30 years and over	43	40	16.5
Total	1,235	1,141	3.9

In very few cases were the women now being considered casual or temporary workers. Almost without exception they held regular positions, usually at some form of factory work, and worked as regularly as their employment permitted. This is evident from the fact that the average number of days worked during the scheduled year by the total of 1,235 women was 231. When it is remembered that almost two-thirds of the women were employed in glass factories, many of which did not operate at most more than 40 weeks a year, and that other forms of lucrative employment for women were practically absent in many communities, it would appear that an average of 231 days worked was not far below the possible maximum. Information upon this point was obtained from all but 3 of the 1,235 women scheduled, and is presented separately for the women of the several ages in the following table. This table also persents similar data in regard to the average earnings, annual and daily, of these persons.

AVERAGE ANNUAL DAYS WORKED AND AVERAGE EARNINGS OF SINGLE WOMEN 16 YEARS OF AGE AND OVER AT WORK, BY AGE.

Age.	Number reporting.	Average days worked past year.	Average earnings past year.	Average earnings per day worked.
16 years	283	216	$163	$0.75
17 years	233	228	182	.80
18 years	197	240	214	.89
19 years	106	231	206	.89
20 years	106	239	232	.97
21 years	75	233	219	.94
22 years	56	234	214	.91
23 years	45	248	244	.98
24 years	36	239	246	1.03
25 to 29 years	52	242	292	1.27
30 years and over	43	244	263	1.08
Total	1,232	231	205	.89

In examining this table it appears that, as between those of the different ages there is comparatively little variation in the average number of days worked during the year preceding the date of scheduling. Such variation as exists is irregular, and without any apparent reference to age as an influencing factor.

In the matter of their earnings, however, the women of the several ages and age groups exhibit important differences. With two slight unexplainable decreases at the ages 21 and 22 the average daily earnings (for the days worked) shows a slow but steady increase up to the age group 25 to 29 years, where the maximum, $1.27 a day, is reached. Thereafter the number of individuals in any limited age group is too small to be representative, but is sufficient to indicate that the earning capacity of these women as a whole decreases after the age of 30. As the number of days worked during the year does not vary greatly with age, the average earnings per year follow much the same course as that of daily earnings. The average earnings per year for those of all ages was $205, the maximum of $292 being reached by those of the 25 to 29 year group.

The general financial condition of the families of which these single women at work were members is shown in the next table. This table gives for the women of each age or age group separately the number of such women, the number of families concerned, the average family membership, and the average per capita weekly income, and also classifies such families by selected per capita weekly income groups. In examining this table it is to be noted that in the details thereof each family appears as many times as it has single women of different ages at work, with the result that the members and averages for families having women of specified ages are not comparable with the totals and averages for the combined families.

ECONOMIC CONDITION OF SINGLE WOMEN 16 YEARS OF AGE AND OVER AT WORK AND OF THEIR FAMILIES, BY AGE OF WOMEN.

Single women 16 and over at work.		Families of single women 16 and over at work.								
Age.	Number.	Number.	Average size.	Average per capita weekly income.	Having per capita weekly income of—					
					Less than $1.50.		Less than $2.		$2 and over.	
					Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
16 years	283	278	6.8	$2.62	40	14.4	91	32.7	187	67.3
17 years	233	231	6.9	2.95	16	6.9	45	19.5	186	80.5
18 years	198	198	6.7	3.13	8	4.0	31	15.7	167	84.3
19 years	107	107	6.6	3.15	6	5.6	18	16.8	89	83.2
20 years	107	107	6.6	3.36	4	3.7	13	12.1	94	87.9
21 years	75	75	6.5	3.35	4	5.3	12	16.0	63	84.0
22 years	56	56	6.7	3.15	2	3.6	12	21.4	44	78.6
23 years	45	45	6.6	3.55	....	....	4	8.9	41	91.1
24 years	36	36	5.8	3.62	1	2.8	2	5.6	34	94.4
25 to 29 years	52	48	5.5	4.29	....	....	2	4.2	46	95.8
30 years and over	43	35	5.4	3.96	1	2.9	3	8.6	32	91.4
Total	1,235	911	6.5	3.01	70	7.7	194	21.3	717	78.7

It will be observed from this table that the average size of the total 911 families was 6.5 members and the average per capita weekly income was $3.01. Comparison of the data for the several groups of families with women of the specified ages at work is somewhat weakened by the fact that in the details of this table each family appears as many times as it has single women of different ages at work. The duplications, however, while numerous, do not seriously affect the general indication of such a comparison because of the fact that, in most cases, where two or more daughters of different ages occur in the same family they are usually not far separated in age.

In making such comparisons. however, it is necessary again to recall that the data for each family cover the year preceeding the time of its visiting, and that, therefore, females here listed as 16 years of age were really under 16 during a part of the year. The family data for such persons, therefore, belongs as accurately with the subject of children under 16 at work as it does with that of women at work. Excluding from present consideration, therefore, the group of families with females 16 years of age, it is of interest to note that while the average size and average per capita income tend to decrease and increase, respectively, with the increasing ages of the women, the variation is not especially marked until the two or three upper age groups are reached. In other words, the average per capita weekly income for the total of all families, $3.01, is fairly representative of the financial condition of each of the several groups.

It would appear that the families with single women at work, with an average per capita weekly income of $3.01, were, on the whole, well above the line of distressing poverty. Such an average, however, is the resultant of some very low incomes and some very high incomes. This is made clear in the latter part of the above table, which shows that 70 of the 911, or 7.7 per cent, families concerned had a per capita weekly income of less than $1.50; and that 194, or 21.3 per cent, received a per capita weekly income of less than $2.

The wide geographical distribution of the families of the working women now being considered interferes with a satisfactory comparison of the above data by States. Thirteen States are represented, the number of visited families with single women at work varying from 382 in Pennsylvania to 1 in Georgia. Upon certain points, however, a comparison of the data obtained by States is of interest. The following table makes such comparison of the data regarding number of days worked and earnings:

AVERAGE ANNUAL DAYS WORKED AND AVERAGE EARNINGS OF SINGLE WOMEN 16 YEARS OF AGE AND OVER AT WORK, BY STATES.

State.	Number.	Average days worked past year.	Average earnings past year.	Average earnings per day worked.
New York	62	231	$205	$0.89
New Jersey	82	229	218	.95
Pennsylvania	498	[a] 236	197	[a] .83
Ohio	168	236	216	.92
Indiana	49	205	180	.88
Illinois	115	225	208	.92
Wisconsin	16	252	213	.85
Missouri	5	140	145	1.04
West Virginia	194	[b] 226	225	[b] 1.00
Maryland	26	220	169	.77
Virginia	14	240	131	.55
Tennessee	5	248	174	.70
Georgia	1	90	13	.14
Total	1,235	[c] 231	205	[c] .89

[a] Not including 2 not reported. [b] Not including 1 not reported. [c] Not including 3 not reported.

In this table all the States covered are listed, although in some, notably Wisconsin, Missouri, Virginia, Georgia, and Tennessee, the number of individuals is too small to be at all representative. Limiting attention to the eight remaining States, it is to be noted that while variations between States upon the points listed, days worked, annual earnings, and daily earning capacity, are well marked in a few cases, such variations are, on the whole, of no very considerable importance In Maryland 220 days' work was rewarded with $169, representing a daily earning capacity of only 77 cents. In West Virginia approximately the same number of days' work was paid $225, an average of $1 per day. Between these two extremes the other States fall in irregular order.

State comparison of the family data for these women is made in the following table upon the points of family size and family income:

AVERAGE SIZE AND INCOME OF FAMILIES OF SINGLE WOMEN 16 YEARS OF AGE AND OVER AT WORK, BY STATES.

State.	Number.	Average size of family.	Average income per family past year	Average per capita weekly income.
New York	42	6.4	$1,125	$3.39
New Jersey	63	6.7	1,148	3.31
Pennsylvania	382	6.7	950	2.73
Ohio	109	6.0	1,123	3.59
Indiana	36	6.2	1,061	3.29
Illinois	82	6.5	1,031	3.07
Wisconsin	14	6.9	1,002	2.78
Missouri	4	4.8	802	3.25
West Virginia	143	6.1	1,071	3.38
Maryland	22	7.2	877	2.41
Virginia	8	6.8	735	2.09
Tennessee	5	6.2	1,159	3.60
Georgia	1	4.0	409	1.97
Total	911	6.5	1,020	3.01

As in the examination of the previous table, the States of Wisconsin, Missouri, Virginia, Georgia, and Tennessee at least must be excluded from consideration because of the small numbers of families concerned. As between the remaining eight States attention may be called to the fact that the per capita weekly income is lowest in Maryland, $2.41, next lowest in Pennsylvania, $2.73, and highest in Ohio, $3.59, with West Virginia second highest, $3.38.

CHILDREN UNDER 16 YEARS OF AGE AT WORK, AT SCHOOL, AND AT HOME.

The total number of children under 16 years of age in the 2,137 families visited and scheduled during this investigation was 6,662. Of these 6,662 children, 1,450 were under 6 years of age. The condition of the remaining 5,212 as regards their being at work, at school, or at home is shown by age groups in the following table:

CHILDREN UNDER 16 YEARS OF AGE AT WORK, AT SCHOOL, AND AT HOME, BY AGE GROUPS.

Age groups.	Total number.	At work.		At school.		At home.	
		Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
6 to 11 years	2,343	26	1.1	2,022	86.3	295	12.6
12 and 13 years	975	171	17.5	773	79.3	31	3.2
Total 6 to 13 years	3,318	197	5.9	2,795	84.3	326	9.8
14 and 15 years	1,894	1,696	89.5	134	7.1	64	3.4
Total 6 to 15 years	5,212	1,893	36.3	2,929	56.2	390	7.5

From this table it is seen that of the total of 5,212 children between 6 and 15 years of age, 1,893, or 36.3 per cent, were at work, as against

2,929, or 56.2 per cent, at school and 390, or 7.5 per cent, at home. The great majority of those at work were in the 14 and 15 year age period, 89.5 per cent of the children of these ages being at work, as against only 7.1 per cent at school and 3.4 per cent at home. Of the 975 children 12 and 13 years of age, 79.3 per cent were at school, 3.2 per cent were at home, and 17.5 per cent were at work. The children 6 to 11 years of age were mostly at school, only 26 of the 2,343, or 1.1 per cent, of this age being at work, as against 86.3 per cent at school and 12.6 per cent at home.

The data of the preceding table are for all States included in the investigation. Comparison of the more important points of these data by States may now be made. The following table makes such comparison for children 14 and 15 years of age:

CHILDREN 14 AND 15 YEARS OF AGE AT WORK, AT SCHOOL, AND AT HOME BY STATES.

State.	Total number.	At work.		At school.		At Home.	
		Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
New York	65	50	76.9	13	20.0	2	3.1
New Jersey	143	137	95.8	....	....	6	4.2
Pennsylvania	832	750	90.1	59	7.1	23	2.8
Ohio	214	182	85.0	23	10.8	9	4.2
Indiana	121	114	94.2	6	5.0	1	.8
Illinois	129	114	88.4	10	7.7	5	3.9
Wisconsin	51	46	90.2	4	7.8	1	2.0
Missouri	16	14	87.5	1	6.3	1	6.2
West Virginia	249	220	88.4	16	6.4	13	5.2
Maryland, Virginia, Tennessee, South Carolina, and Georgia	74	69	93.2	2	2.7	3	4.1
Total	1,894	1,696	89.5	134	7.1	64	3.4

Examination of this table shows, as between the States, considerable variation in the proportion of children at work, at school, and at home. The percentage of children 14 and 15 years of age at work, of total scheduled in State, was smallest in New York, 76.9 per cent, and largest in New Jersey, 95.8 per cent, with Indiana closely following, 94.2 per cent. In New Jersey no children of the specified ages were at school, whereas in New York 20 per cent of those scheduled were at school, and in Ohio 10.8 per cent. In the case of children at home, it is to be remembered that a few were at home rather than at school or at work because of physical infirmity.

The next table shows in the same form as the preceding one corresponding data for children 12 and 13 years of age. With these the variations among the States are very marked, although it is to be noted that with several States, notably Missouri and Wisconsin, the number of children reported are too small to be fairly representative.

CHILDREN 12 AND 13 YEARS OF AGE AT WORK, AT SCHOOL, AND AT HOME, BY STATES.

State.	Total number.	At work.		At school.		At home.	
		Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
New York	40	1	2.5	39	97.5	....	....
New Jersey	60	16	26.7	43	71.7	1	1.6
Pennsylvania	423	54	12.8	360	85.1	9	2.1
Ohio	86	4	4.6	77	89.5	5	5.8
Indiana	62	....	....	61	98.4	1	1.6
Illinois	70	....	....	68	97.1	2	2.9
Wisconsin	31	....	....	31	100.0	....	....
Missouri	6	2	33.3	3	50.0	1	16.7
West Virginia	139	55	39.6	75	53.9	9	6.5
Maryland, Virginia, Tennessee, South Carolina, and Georgia	58	39	67.2	16	27.6	3	5.2
Total	975	171	17.5	773	79.3	31	3.2

In Indiana, Illinois, and Wisconsin none of the scheduled children 12 and 13 years of age were at work, all of them, with three exceptions, being at school. In the Southern States, at the other extreme, no less than 39 of the 58 children scheduled, 67.2 per cent were at work, and hardly one-quarter, 27.6 per cent, were at school. In Pennsylvania 54 out of 423 children, 12.8 per cent, were at work, all the remaining, except 9, being at school. In West Virignia, a State having a legal age limit of 12 years, 39.6 per cent of the children 12 and 13 years of age were at work.

Similar information for children 6 to 11 years of age is offered in the next table.

CHILDREN 6 TO 11 YEARS OF AGE AT WORK, AT SCHOOL, AND AT HOME, BY STATES.

State.	Total number.	At work.		At school.		At home.	
		Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
New York	63	....	....	63	100.0	....	....
New Jersey	153	1	0.6	141	92.2	11	7.2
Pennsylvania	1,119	1	.1	985	88.0	133	11.9
Ohio	211	....	....	187	88.6	24	11.4
Indiana	146	....	....	129	88.4	17	11.6
Illinois	177	....	....	147	83.1	30	16.9
Wisconsin	67	....	....	63	94.0	4	6.0
Missouri	12	....	....	11	91.7	1	8.3
West Virginia	277	15	5.4	221	79.8	41	14.8
Maryland, Virginia, Tennessee, South Carolina, and Georgia	118	9	7.6	75	63.6	34	28.8
Total	2,343	26	1.1	2,022	86.3	295	12.6

The total number of children 6 to 11 years of age at work is very small, only 26 out of 2,343, and with two exceptions, all of these 26 children at work were in West Virginia or in the group of Southern States. As the number of such children at work is so small the chief interest of this table is in its showing of the extent to which children 6 to 11 years of age were at school. In New York all the children reported were at school. In the group of Southern States, at the other extreme, only 63.6 per cent of such children were at school. In West Virginia the percentage of children at school was also low, 79.8.

The following table presents the same series of facts, classified by nativity and race of the fathers, the children, as before, being grouped as 6 to 11 years of age, 12 and 13, and 14 and 15.

CHILDREN AT WORK, AT SCHOOL, AND AT HOME, BY NATIVITY AND RACE.

CHILDREN 14 AND 15 YEARS OF AGE.

Nativity and race of father.	Total number.	At work.		At school.		At home.	
		Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Native born, native parents:							
White	676	614	90.8	42	6.2	20	3.0
Colored	55	47	85.4	4	7.3	4	7.3
Native born, foreign parents:							
English	23	19	82.6	2	8.7	2	8.7
French	5	5	100.0				
German	142	121	85.2	12	8.5	9	6.3
Irish	66	55	83.3	7	10.6	4	6.1
Italian, South	1	1	100.0				
Polish	1	1	100.0				
Other races	1	1	100.0				
Total	239	203	84.9	21	8.8	15	6.3
Foreign born:							
English	74	64	86.5	7	9.5	3	4.0
French	52	49	94.2	2	3.9	1	1.9
German	258	222	86.0	24	9.3	12	4.7
Irish	93	80	86.0	10	10.8	3	3.2
Italian, South	51	47	92.2	2	3.9	2	3.9
Polish	207	192	92.8	11	5.3	4	1.9
Other Slavs	131	124	94.7	7	5.3		
Other races	58	54	93.1	4	6.9		
Total	924	832	90.0	67	7.3	25	2.7
Grand total	1,894	1,696	89.5	134	7.1	64	3.4

CHILDREN 12 AND 13 YEARS OF AGE.

Native born, native parents:							
White	345	82	23.8	251	72.7	12	3.5
Colored	27	9	33.3	14	51.9	4	14.8
Native born, foreign parents:							
English	14	3	21.4	11	78.6		
French	3			3	100.0		
German	72	11	15.3	58	80.5	3	4.2
Irish	33	5	15.2	28	84.8		
Italian, South	1	1	100.0				
Polish							
Other races	2			2	100.0		
Total	125	20	16.0	102	81.6	3	2.4
Foreign born:							
English	39	5	12.8	31	79.5	3	7.7
French	21	1	4.8	20	95.2		
German	142	16	11.3	121	85.2	5	3.5
Irish	61	8	13.1	53	86.9		
Italian, South	20	8	40.0	11	55.0	1	5.0
Polish	108	11	10.2	95	88.0	2	1.8
Other Slavs	64	8	12.5	55	85.9	1	1.6
Other races	23	3	13.0	20	87.0		
Total	478	60	12.6	406	84.9	12	2.5
Grand total	975	171	17.5	773	79.3	31	3.2

CHILDREN AT WORK, AT SCHOOL, AND AT HOME, BY NATIVITY AND RACE—Conc'd.

CHILDREN 6 TO 11 YEARS OF AGE.

Nativity and race of father.	Total number.	At work.		At school.		At home.	
		Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Native born, native parents:							
White	797	13	1.6	689	86.5	95	11.9
Colored	73	5	6.9	49	67.1	19	26.0
Native born, foreign parents:							
English	29	....	....	28	96.6	1	3.4
French	6	....	....	6	100.0	....	....
German	173	1	.6	155	89.6	17	9.8
Irish	80	....	....	77	96.3	3	3.7
Italian, South	1	....	....	....	....	1	100.0
Polish	2	....	....	2	100.0	....	....
Other races	3	....	....	1	33.3	2	66.7
Total	294	1	.3	269	91.5	24	8.2
Foreign born:							
English	70	....	....	60	85.7	10	14.3
French	47	....	....	43	91.5	4	8.5
German	308	3	1.0	273	88.6	32	10.4
Irish	138	....	....	127	92.0	11	8.0
Italian, South	68	....	....	60	88.2	8	11.8
Polish	289	....	....	244	84.4	45	15.6
Other Slavs	184	3	1.6	143	77.7	38	20.7
Other races	75	1	1.3	65	86.7	9	12.0
Total	1,179	7	.6	1,015	86.1	157	13.3
Grand total	2,343	26	1.1	2,022	86.3	295	12.6

CHILDREN AT WORK AND THEIR FAMILY CONDITIONS.

CHILDREN 14 AND 15 YEARS OF AGE AT WORK.

Of the 2,137 families visited and scheduled in the course of this investigation 1,681 had children 14 and 15 years of age, the total number of such children being 1,894. In 1,562 (92.9 per cent) of these families children of the specified ages, 1,696 in number, were at work, as against 119 families (7.1 per cent) in which there were children of the specified ages but none such at work.

The more important points regarding the family conditions of the former group of children—those at work—are presented in the following table. This table classifies the several individuals according to the condition of the parents, and shows for each class the number of families concerned, the average size of family, and indicates the respective financial situations of the families of the several classes.

CHILDREN 14 AND 15 YEARS OF AGE AT WORK, AVERAGE SIZE OF THEIR FAMILIES AND FAMILY INCOME EXCLUDING EARNINGS OF CHILDREN UNDER 16, BY CONDITION AS TO PARENTS.

Condition as to parents.	Children 14 and 15 years of age at work.		Families of children 14 and 15 years of age at work.			
	Number.	Per cent of total number.	Number.	Average size of family.	Income, excluding earnings of children under 16.	
					Annual per family.	Weekly per capita.
Orphans	1	0.1	1	2.0	$110	$1.06
Children of widows	228	13.4	212	5.2	548	2.02
Children of deserted mothers	66	3.9	59	4.9	406	1.60
Children of incapacitated fathers	33	1.9	33	6.1	615	1.95
Children of idle fathers	18	1.1	16	8.4	709	1.62
Children with both parents at work	78	4.6	74	6.5	624	1.83
Children with fathers, but not mothers, at work	1,272	75.0	1,167	6.9	833	2.32
Total	1,696	100.0	1,562	6.6	762	2.22

It would appear therefore that of the 1,696 children 14 and 15 years of age at work, 79.6 per cent had fathers living and at work, 1.1 per cent had fathers living and able to work but idle, and the remaining 19.3 per cent were in families of which the father was no longer an active member. It is to be noted, however, that the proportion of children with father dead and particularly those with both parents dead is considerably less than the proportion of such children in the glass industry, as shown in the section entitled "Orphans and fatherless children at work" (pp. 561–563). The discrepancy is due to the fact that in obtaining family schedules greater difficulty was always experienced in locating the families of children without fathers than those with fathers, because of the fact that the absence of a father and especially of both father and mother often rendered the homes of such children of a transitory character.

The average annual income of the 1,562 families concerned, after excluding the earnings of children under 16 years of age, was, as noted in the fifth column of the table, $762, and the corresponding weekly per capita, $2.22. It would appear that the average weekly income of the group of families now being considered was slightly above the $2 standard. Examination of the data for the several groups, however, shows a very considerable variation in the weekly per capita income. Those families in which the fathers, but not the mothers, were at work had the highest per capita income, $2.32. Families with deceased fathers had the next highest income, $2.02, the incomes of all the other groups falling below $2. As there was only one schedule family with orphan children, the data in regard to it can not be taken, of course, as representative. It is of special interest to note, however, that both the actual and per capita income of families with both parents at work were very much lower than the corresponding incomes for families in which the fathers, but not the mothers, were at work.

The average income, as used in the above table, while satisfactory for the purpose of comparing the financial situation of families of different groups, fails to show the wide variations in the incomes of the individual families. A number of the families had incomes far below the average, some indeed, without the labor of their children of age, would have had no income at all; others, on the other hand, had incomes, which even without the earnings of their children, permitted at least of extremely comfortable living. This point is developed in the following table, which classifies the several families concerned by selected per capita weekly income groups:

CLASSIFIED PER CAPITA WEEKLY INCOME OF FAMILIES HAVING CHILDREN 14 AND 15 YEARS OF AGE AT WORK, EXCLUDING EARNINGS OF CHILDREN UNDER 16.

Per capita weekly income.	Families having specified income, excluding earnings of children under 16.	
	Number.	Per cent.
Less than $1	210	13.4
$1 and less than $1.50	273	17.5
$1.50 and less than $2	267	17.1
$2 and less than $3	425	27.2
$3 and less than $4	221	14.2
$4 and over	166	10.6
Total	1,562	100.0

Having thus presented in some detail the obtained data relative to the family conditions of children 14 and 15 years of age at work, comparison may be made between such conditions and the corresponding conditions of those families in which there were children of the specified ages but none such at work. The number of families of this latter class is too small to be accurately representative but is sufficient to render certain broad comparisons of considerable significance.

It will be remembered from a preceding page that as against 1,562 families with children 14 and 15 years of age at work there were only 119 families with children of those ages but none at work. In 2 of these 119 families the children of 14 and 15 years of age were incapacitated for work by bodily infirmities even if it had been desired that they should work; and in 13 other families of the same group, although the children of 14 and 15 years of age were not at work, children under 14 years were at work.

In making comparisons between these two groups of families, those with and those without children 14 and 15 years of age at work, it is desirable to exclude the mentioned 15 cases, in which the children of the ages of 14 and 15 were incapacitated from labor or in which children under 14 were at work. After such exclusion, the data to be considered, while small, is of a clear cut, comparable character—1,562 families with children 14 and 15 years of age at work on the one hand, and, on the other, 104 families with children 14 and 15 years of age but no children under 16 at work.

The 104 families of the latter class had a total of 106 children of the specified ages, 2 families having 2 such children each. The following table classifies these 106 children according to the condition of the parents, and compares their situation upon this point with that of the 1,696 children of the same ages who were at work.

CONDITION AS TO PARENTS OF CHILDREN 14 AND 15 YEARS OF AGE AT WORK AND NOT AT WORK.

Condition as to parents.	Children 14 and 15 years of age—			
	Not at work.		At work.	
	Number.	Per cent.	Number.	Per cent.
Orphans			1	0.1
Children of widows	10	9.4	228	13.4
Children of deserted mothers	3	2.8	66	3.9
Children of incapitated fathers	4	3.8	33	1.9
Children of idle fathers	1	.9	18	1.1
Children with both parents at work	6	5.7	78	4.6
Children with father, but not mother, at work	82	77.4	1,272	75.0
Total	106	100.0	1,696	100.0

It would appear from this table that as regards condition of parents these two classes of families were very similar. In the case of children not at work, 77.4 per cent had fathers, but not mothers, at work as against 75 per cent in the cases of children at work, and the differences in the other groups are correspondingly small.

In the matter of their respective financial conditions, however, the two classes of families represented by these children exhibit important differences. This point is developed in the following table, which, maintaining the grouping according to condition of parents as before, shows for each group the number of families, the average annual income per family, and the weekly per capita income. In computing the financial data, earnings of children have been omitted in the case of families with children at work; in the case of children 14 and 15 not at work there were no earnings from children under 16, the few families of this latter class, in which children under 14 were at work having been excluded, as described before.

SIZE AND INCOME OF FAMILIES WITH CHILDREN 14 AND 15 YEARS OF AGE AT WORK AND NOT AT WORK, BY CONDITION AS TO PARENTS.

Condition as to parents.	Families with children 14 and 15 years of age—							
	Not at work.				At work.			
	Number.	Size of family.	Annual income per family.	Per capita weekly income.	Number.	Size of family.	Annual income per family.	Per capita weekly income.
Orphans					1	2.0	$110	$1.06
Children of widows	10	5.4	$1,026	$3.65	212	5.2	548	2.02
Children of deserted mothers	3	6.7	966	2.79	59	4.9	406	1.60
Children of incapacitated fathers	4	8.3	1,096	2.53	33	6.1	615	1.95
Children of idle fathers	1	6.0	889	2.85	16	8.4	709	1.62
Children with both parents at work	6	7.3	1,097	2.88	74	6.5	624	1.83
Children with father, but not mother, at work	80	7.5	1,249	3.22	1,167	6.9	833	2.32
Total	104	7.3	1,201	3.15	1,562	6.6	762	2.22

Examination of this table shows that those families in which there were children 14 and 15 years of age, but no children under 16 at work, were in a very much better financial situation than those families in which children of 14 and 15 years of age were at work. The difference is so marked that it would seem conclusive of a definite condition, notwithstanding the fact that the number of families represented in the first group is small. Thus the average annual income for families of the first group was $1,201 as against $762 for those of the second group, a difference of $439; and the average per capita weekly income shows a similar proportionate difference, $3.15 in the case of the former group as against $2.22 in the case of the latter.

This difference in the financial condition of these two groups of families may be shown more graphically as follows:

NUMBER AND PER CENT OF FAMILIES HAVING CLASSIFIED PER CAPITA WEEKLY INCOMES, WITH CHILDREN 14 AND 15 AT WORK AND NOT AT WORK.

Per capita weekly income.	Families having specified incomes.			
	Children 14 and 15 at work.		Children 14 and 15 not at work.	
	Number.	Per cent.	Number.	Per cent.
Less than $1	210	13.4	3	2.9
$1 and less than $1.50	273	17.5	4	3.8
$1.50 and less than $2	267	17.1	19	18.3
$2 and over	812	52.0	78	75.0
Total	1,562	100.0	104	100.0

Other factors, however, besides the financial one are of apparent importance in the matter of these children not working. Thus it appears that of the 106 children 14 and 15 years of age not at work, more than two-thirds were females, less than one-third were 15 years of age, and only 9 of these were males. The following table shows the exact data upon this point, and makes comparison with similar data for the 1,696 children 14 and 15 years of age who were at work:

AGE AND SEX OF CHILDREN 14 AND 15 YEARS OF AGE AT WORK AND NOT AT WORK.

Age and sex.	Children of specified age and sex—			
	At work.		Not at work.	
	Number.	Per cent.	Number.	Per cent.
Males	1,411	83.2	34	32.1
Females	285	16.8	72	67.9
Total	1,696	100.0	106	100.0
Males and females 14 years	886	52.2	71	67.0
Males and females 15 years	810	47.8	35	33.0
Total	1,696	100.0	106	100.0
Males 14 years	773	54.8	25	73.5
Males 15 years	638	45.2	9	26.5
Total males	1,411	100.0	34	100.0
Females 14 years	113	39.6	46	63.9
Females 15 years	172	60.4	26	36.1
Total females	285	100.0	72	100.0

The above tables and discussion have regarded the scheduled families as a single group without reference to state location. The value of a detailed presentation of this information by States is considerably weakened by the wide distribution of the families concerned with the result that in several States the number of families is too small to be representative. Upon some of the more important points under consideration, however, a state comparison is not without significance. The following table offers the data for such a comparison upon the following points: The average size of family, the average income from earnings of children under 16, the annual income per family excluding the earnings of children under 16, and the per capita weekly income excluding earnings of children under 16.

AVERAGE SIZE AND INCOME OF FAMILIES OF CHILDREN 14 AND 15 YEARS OF AGE AT WORK, BY STATES.

State.	Number.	Average size.	Average annual income from earnings of children under 16.	Income, excluding earnings of children under 16.	
				Annual, per family.	Weekly, per capita.
New York	49	6.4	$130	$864	$2.51
New Jersey	127	6.3	173	851	2.63
Pennsylvania	684	6.8	162	703	1.98
Ohio	174	6.2	164	780	2.43
Indiana	109	6.1	157	792	2.48
Illinois	108	6.5	149	907	2.68
Wisconsin	43	7.9	173	837	2.04
Missouri	14	4.9	224	426	1.69
West Virginia	191	6.5	215	793	2.34
Maryland	30	6.7	156	655	1.89
Virginia	19	7.3	182	722	1.90
Tennessee	8	7.1	309	925	2.50
South Carolina	3	7.0	286	369	1.01
Georgia	3	5.3	199	500	1.80
Total	1,562	6.6	169	762	2.22

In examining this table it will be observed that the most extreme variations upon each point of comparison are in those States in which the numbers of families scheduled are small. Nevertheless, even in the case of those States in which the families are numerous enough to be fairly representative, important variations occur. Thus, limiting attention to New Jersey, Pennsylvania, Ohio, Indiana, Illinois, and West Virginia, in each of which States more than 100 families were scheduled, the average annual income from earnings of children varied from $149 in Illinois to $215 in West Virginia; the annual income per family from $703 in Pennsylvania to $907 in Illinois; and the weekly per capita income from $1.98 in Pennsylvania to $2.68 in Illinois.

In the following table a more detailed comparison is made of the families of the several States according to their per capita weekly incomes. This table repeats from the preceding table the average weekly per capita income for each State as a whole, and then classifies the families concerned according to the size of such income.

FAMILIES HAVING CHILDREN 14 AND 15 YEARS OF AGE AT WORK CLASSIFIED ACCORDING TO PER CAPITA WEEKLY INCOME, EXCLUDING EARNINGS OF CHILDREN UNDER 16, BY STATES.

State.	Average per capita weekly income, excluding earnings of children under 16.	Families having per capita weekly income, excluding earnings of children under 16, of—							
		Less than $1.		Less than $1.50.		Less than $2.		$2 and over.	
		Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
New York	$2.51	2	4.1	9	18.4	16	32.7	33	67.3
New Jersey	2.63	9	7.1	30	23.6	43	33.9	84	66.1
Pennsylvania	1.98	120	17.5	257	37.6	385	56.3	299	43.7
Ohio	2.43	22	12.6	43	24.7	68	39.1	106	60.9
Indiana	2.48	10	9.2	30	27.5	45	41.3	64	58.7
Illinois	2.68	6	5.6	15	13.9	34	31.5	74	68.5
Wisconsin	2.04	7	16.3	13	30.2	20	46.5	23	53.5
Missouri	1.69	3	21.4	3	21.4	9	64.3	5	35.7
West Virginia	2.34	24	12.6	57	29.8	90	47.1	101	52.9
Maryland	1.89	2	6.7	13	43.3	21	70.0	9	30.0
Virginia	1.90	4	21.1	10	52.6	11	57.9	8	42.1
Tennessee	2.50	....	....	....	....	2	25.0	6	75.0
South Carolina	1.01	1	33.3	2	66.7	3	100.0	....	....
Georgia	1.80	....	....	1	33.3	3	100.0	....	....
Total	2.22	210	13.4	483	30.9	750	48.0	812	52.0

CHILDREN UNDER 14 YEARS OF AGE AT WORK.

Children under 14 years of age were found in 1,646 of the 2,137 families scheduled. The total number of such children was 4,768, making an average of 2.9 per family. Of these 4,768 children under 14 years of age, 197, or 4.1 per cent, were at work.

These children were very largely males, only 17 of the 197, or 8.6 per cent, being females. None of these 17 female children was under 12 years of age and only 4 were as young as 12. Among the male children, however, 26 out of 180, or 14.5 per cent, were under 12 years of age and 3 were as young as 9 years. The exact distribution of the children upon these points was as follows:

NUMBER AND PER CENT OF CHILDREN OF EACH AGE UNDER 14 AT WORK, BY SEX.

Age.	Children under 14 years at work.					
	Males.		Females.		Total.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
9 years	3	1.7	....	....	3	1.5
10 years	12	6.7	....	....	12	6.1
11 years	11	6.1	....	....	11	5.6
12 years	46	25.5	4	23.5	50	25.4
13 years	108	60.0	13	76.5	121	61.4
Total	180	100.0	17	100.0	197	100.0

In some families having children under 14 years at work there was more than one such person, the total number of families represented by the 197 children being 179. The more important points regarding the family conditions of these 179 families is presented in the following table. This table classifies the children concerned according to condition of parents and shows for each class, separately and in total, the average size of family and the average income, both annual and per capita.

CHILDREN UNDER 14 YEARS OF AGE AT WORK, AVERAGE SIZE OF THEIR FAMILIES, AND FAMILY INCOME EXCLUDING EARNINGS OF CHILDREN UNDER 14, BY CONDITION AS TO PARENTS.

Condition as to parents.	Children under 14 years of age at work.		Families of children under 14 years of age at work.			
					Income, excluding earnings of children under 14.	
	Number.	Per cent of total number.	Number.	Average size.	Annual per family.	Weekly per capita.
Orphans	......	......	......	......	......	......
Children of widows	34	17.2	31	4.6	$433	$1.08
Children of deserted mothers	9	4.6	9	4.2	392	1.80
Children of incapacitated fathers	1	.5	1	8.0	372	.89
Children of idle fathers	1	.5	1	7.0	398	1.09
Children with both parents at work	24	12.2	20	6.9	587	1.64
Children with father but not mother at work	128	65.0	117	7.6	822	2.08
Total	197	100.0	179	6.8	702	1.97

The data of the first four columns of this table may be compared with the table on page 552, showing corresponding data for the families of children 14 and 15 years of age at work. In so doing, however, it is to be noted that the two classes are not entirely exclusive; that is to say, some families had children of 14 and 15 and also under 14 at work, and in such cases the family concerned has been included in both classes. As regards parental condition such a comparison shows that with the younger children there was a much larger proportion with both parents at work, 12.2 per cent as against 4.6 per cent; and a somewhat smaller proportion with fathers but not mothers at work, 65 per cent as against 75 per cent. Children of widows are proportionately more numerous in the case of the younger children, but the difference is not great, 17.2 per cent as against 13.4 per cent.

As regards size of family the two classes of families are closely similar, 6.8 members per family in the case of the families with children under 14 as against an average membership of 6.6 in families with children 14 and 15 years of age.

Upon the point of financial condition the data of the two tables are not subject of comparison. The income data of the earlier table excludes the earnings of all children under 16 years of age, whereas in the latter table exclusion is made of only the earnings of children under 14 years of age. It may be noted, however, that both the income per family and per capita weekly income are considerably lower in the case of the families with the younger children; and of course if the earnings of children 14 and 15 years of age had also been excluded the differences between the two classes would have been even more marked.

Accepting a weekly per capita standard of $2 as marking roughly the minimum amount upon which a normal family can avoid acute poverty, it will be noted that the weekly per capita income of all these 197 families was approximately at the standard, $1.97. The 128 families with fathers but not mothers at work were slightly above the standard, with a $2.08 weekly per capita income, but the families with both parents at work had a much lower income, and families of widows, 34 in number, had a per capita weekly income of only $1.08, barely one-half of the suggested standard amount. In the other groups the numbers of families concerned were too small to render the data of much significance.

The average per capita weekly income of the 179 families with children under 14 at work was, as given above, $1.97. The variations among the several families, however, were very large. Some were in distressing poverty; a few had incomes sufficient for comfortable living even if the earnings of the young children had been excluded. The distribution of the families in this respect is as follows:

CLASSIFIED PER CAPITA WEEKLY INCOME OF FAMILIES HAVING CHILDREN UNDER 14 YEARS OF AGE AT WORK, EXCLUDING EARNINGS OF SUCH CHILDREN.

Per capita weekly income.	Families having specified income excluding earnings of children under 14 years.	
	Number.	Per cent.
Less than $1	30	16.8
$1 and less than $1.50	32	17.9
$1.50 and less than $2	44	24.6
$2 and less than $3	45	25.1
$3 and less than $4	23	12.8
$4 and over	5	2.8
Total	179	100.0

It is seen from this table that while a few families had a per capita weekly income of as much as $4, the number of such families was only 5, less than 3 per cent of the total number scheduled. Almost 60 per cent of the families concerned had a per capita income of less than $2 a week, and with 62, or approximately one-third, families, such income was less than $1.50.

Because of the few families with children under 14 years of age at work, presentation of any of the above data by States is impracticable.

ORPHANS AND FATHERLESS CHILDREN AT WORK.

It is a frequent charge against the glass industry that it exploits orphan and fatherless children. Because of the prevalence of this charge especial effort was made to obtain precise information regarding the condition of the parents of each of the children found working in the factories visited. In the course of the investigation a large number of the families of child workers were visited and in regard to these the information regarding the condition of parents was, of course, readily ascertained. To use these particular children as representative of the true situation regarding the present subject is, however, not satisfactory. The families visited, while thoroughly representative in other respects, can not be accepted as representative upon this particular point. Such families possessed an undue proportion of parents living, for the reason that when both parents were dead the child was sometimes not living as an intimate member of any family for whom a schedule could be obtained. The number of such children is sufficient to vitiate deductions drawn from information obtained from families visited.

Therefore, in seeking to discover the condition of the parents of child glassworkers reliance was had upon questions asked of the children found in the factory at the time of visiting. In total 4,310 children were found at work, and correct reports were received for 3,433. The data obtained are presented in the following table, which shows by exact age the respective numbers and percentages of orphan, fatherless, and motherless children under 16 years of age:

NUMBER AND PER CENT OF ORPHAN, FATHERLESS, AND MOTHERLESS CHILDREN UNDER 16 AT WORK, BY AGE OF CHILDREN.

Age of children.	Total children reporting condition.	Number.				Per cent.			
		Father dead.		Father living.		Father dead.		Father living.	
		Mother dead.	Mother living.	Mother dead.	Mother living.	Mother dead.	Mother living.	Mother dead.	Mother living.
Under 10 years	2	....	....	....	2	....	....	....	100.0
10 years	7	1	1	....	5	14.3	14.3	....	71.4
11 years	8	....	2	....	6	....	25.0	....	75.0
12 years	31	....	7	2	22	....	22.6	6.4	71.0
13 years	146	2	26	5	113	1.4	17.8	3.4	72.4
14 years	1,337	24	204	87	1,022	1.8	15.3	6.5	76.4
15 years	1,902	55	290	150	1,407	2.9	15.2	7.9	74.0
Total	3,433	82	530	244	2,577	2.4	15.4	7.1	75.1

It appears from this table that of the total of 3,433 children reporting 2.4 per cent were full orphans, and 17.8 per cent were fatherless. It is of interest to note that the proportions of orphan and fatherless children decreases almost regularly as the ages of the children increase.

The distribution of these 612 orphan and fatherless children among the States covered is shown in the following table:

TOTAL NUMBER OF CHILDREN UNDER 16 YEARS OF AGE EMPLOYED IN GLASS FACTORIES REPORTING CONDITION AND NUMBER AND PER CENT HAVING BOTH PARENTS DEAD OR FATHER DEAD, BY STATES.

State.	Total number of children reporting.	Children reporting father dead.					
		Mother dead.		Mother living.		Total.	
		Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Georgia	13	....	....	7	53.8	7	53.8
Missouri	34	2	5.8	11	32.4	13	38.2
West Virginia	376	10	2.7	83	22.1	93	24.7
Virginia	60	1	1.7	12	20.0	13	21.7
Illinois	254	4	1.6	45	17.7	49	19.3
Indiana	410	17	4.1	57	13.9	74	18.0
Tennessee	17	....	....	3	17.6	3	17.6
Maryland	112	6	5.5	13	11.6	19	17.0
Ohio	376	13	3.5	50	13.3	63	16.8
Pennsylvania	1,212	18	1.5	179	14.8	197	16.3
New York	90	2	2.2	12	13.3	14	15.6
New Jersey	399	7	1.8	53	13.3	60	15.0
Wisconsin	47	2	4.3	3	6.4	5	10.6
Massachusetts	26	....	....	2	7.7	2	7.7
Kansas	7	....	....	....	....	....	....
Total, all States	3,433	82	2.4	530	15.4	612	17.8

No particular significance can be attached to the extreme variations in the percentages of fatherless children thus shown to exist among the several States.

The information is not available for a direct comparison of the above information with that for other industries. A comparison with the conditions found existing in three other industries covered by this investigation—cotton, silk, and clothing—is, however, possible by using as the basis of comparison the data obtained in the family scheduling. As has been stated above, the information thus derived is not as satisfactory as that obtained by the method followed in the glass investigation of individual questioning of each child found at work at the time of the visit to the factory. The former method develops a smaller number of orphans, because of the fact that family schedules were rarely obtainable for children of whom both parents were dead, but for the purpose of comparing the situation existing in the four industries the data thus obtained are entirely satisfactory, as it may be assumed that the error was of the same character and degree in each industry.

The comparison is made in the following table, which shows for each industry the percentage of "fatherless" children, using the term fatherless, in a broad sense, to include those instances in which the father, whether through divorce, desertion, or incapacity, is no longer an active member of the family as well as those in which the father is actually deceased:

NUMBER OF CHILDREN UNDER 16 AT WORK HAVING FATHERS DEAD, DIVORCED OR DESERTED, AND INCAPACITATED, WITH PER CENT EACH GROUP IS OF TOTAL CHILDREN UNDER 16 YEARS AT WORK, BY INDUSTRIES.

Industry.	Father dead.		Father divorced or deserted.		Father incapacitated.		Total.		Total number of children under 16 years at work.
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	
Clothing...	117	15.7	18	2.4	27	3.6	162	21.7	746
Glass......	263	13.9	75	4.0	34	1.8	372	19.7	1,893
Cotton.....	404	13.3	164	5.4	115	3.8	683	22.5	3,032
Silk.......	234	13.7	37	2.2	47	2.8	318	18.7	1,704

It appears from this table that the glass industry is a smaller employer of fatherless children than is the clothing industry. As, however, the number of children in the clothing industry is small, a more satisfactory comparison is with the silk and cotton industries. Such a comparison shows the glass industry to be no larger an employer of fatherless children than the cotton industry, and but slightly larger than the silk industry. From these data it is evident that there is no warrant for the charge that the glass industry exploits such children in any unusual degree.

THE RELATION OF CHILD LABOR TO FAMILY INCOME.

In General Tables XI to XXX full presentation is made of the information obtained relative to the financial condition of the families scheduled during the course of the investigation of the glass industry. It is the intent of this chapter to supplement that general presentation by a more intimate study of a few of the more significant points concerning the relation of child labor to family income.

Because of its intimate character it has been necessary to limit the material of the study to the scheduled families, 864 in number, which were living in the eight communities, previously enumerated (p. 506) concerning whom the information regarding industrial characteristics, living conditions, etc., is particularly complete. The reasons for selecting these particular communities are elsewhere given. It is sufficient here to recall that the selection is wholly one of communities, not of individual families. In each community all the scheduled families are included, and as these schedules were gathered without any conscious selection of types, the families to be considered may be accepted as thoroughly representative in character.

The specific nature of the inquiry to be made may be explained briefly as follows: The most striking single fact regarding the 864 families concerned is the wide variation among them in the matter of income received and available during the schedule year. Reducing income in each case to a weekly per capita basis, it appears that while some families had been in receipt of a weekly per capita income as low as $0.50, others had received as much as $5, and that, moreover, between these extremes, the incomes were graded with considerable uniformity. From this fact it is evident that, whatever grade of income be accepted as necessary to raise a family above a condition of presumable poverty, a number of these families were above any possible poverty line, even should the contribution of the children to the family's income be excluded. With these families the fact that their children were at work can not be attributed to financial necessity; the children's earnings could have been entirely eliminated without causing economic suffering.

With the families of the lower incomes, however, this is not the case. The income of each of these families is so low, even with the children at work and contributing that, if the family possessed no compensating resources, the loss of the children's contributions would reduce some to a condition of poverty, and intensify the suffering of those already in that condition. To what extent such families do possess compensating resources is, therefore, a matter of very great interest. If such resources exist, then economic necessity can not be accepted as the primary motive for the children's being at work. If, however, no resources of any kind exist, if the adult members are already employing every effort to better the family's condition, then it would appear that economic necessity might well be offered as a sufficient explanation of the children of such a family being at work.

The present study will attempt to present and analyze the information regarding the 864 families concerned in such a way that the suggested points may be developed. The information is not sufficient to make precise conclusions possible, but it is sufficient to make certain tendencies clear and to make possible certain valuable, although broad, deductions.

In the obtaining of family schedules, special emphasis was placed upon the getting of precise information relative to the full income of each family during the year preceding the date of scheduling. The object of the inquiry was to ascertain the full amount of money or the money value of property received during the year and available for the support of the household. Usually this information was not difficult of ascertainment. With the great majority of families scheduled, income was perfectly specific, being in the precise form of wages. In some cases, however, other sources of income besides labor earnings existed, and occasionally these were not in the form of money. This and other impediments to an exact tabular presentation of all incomes have been overcome as far as possible by the observance of the following rules of interpretation:

(1) Receipts from public charity have been disregarded. This source of income was the one concerning which it was most difficult to obtain reliable information. Only three families acknowledged having received such assistance, although there were a number in which it seems reasonably certain that, as the family income was wholly insufficient, charity in some form must have been resorted to. As a matter of fact, however, the inability to obtain data upon this point is of little consequence in the present study. The principal aim of the study being to ascertain in what degree these families were, or in the absence of their children's earnings would have been, in financial distress, with public charity as the only alternative to physical suffering, to count such charity as a normal source of income would be highly undesirable. Aid from relatives and friends, however, has been included as part of normal income.

(2) Garden and poultry products consumed by the family have been disregarded when their estimated gross value per year did not exceed $25, and when in excess of that amount have been given a net money value.

(3) In similar manner all receipts of property, such as inheritances, gifts of clothing, etc., have been assigned a money value according to the judgment of the family concerned and of the agent who obtained the schedule. When such receipts were of a less annual value than $10 they have not been separately considered.

(4) Profits from "boarders"—that is to say, from persons who received table board or both table board and room board—have been credited as earnings of the mothers, on the assumption that the presence of such boarders imposes extra labor on the woman who conducted the house, and to that extent prevented her earning money at outside employment. On the other hand, profits from rented rooms, which the renters cared for themselves, have been classed as general family receipts "from other sources than labor." ([a])

(5) The earnings of all immediate members of the family, living as such, have been credited in full as family income. In some cases such persons did not contribute their total earnings to the general family fund, but the full amount earned in each case has been preferred to the amount contributed for the reasons: First, because, while it was usually not difficult to obtain exact data upon the earnings of each member of a family, it was sometimes impossible to obtain precise information regarding the proportion of his or her

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[a] See Tables XXVII to XXX, which give earnings, family by family, showing sources and amounts.

earnings which each member actually contributed to the general family fund; and, second, because it may be assumed in an inquiry like the present one, whose specific object is simply to ascertain in what degree the several families may have required the earnings of their children, that all immediate members of a family were responsible for the support of the family as a unit.(a)

The data thus prepared and edited are presented in the following tables which classify the several families concerned within $0.40 groupings, according to the weekly per capita income of each. The classification is made in two forms: First, according to the actual per capita income of each family; and, second, according to such income, less the contributions of children. The first, therefore, exhibits the exact financial situation as regards income of the several families during the year scheduled; the second shows what would have been the resulting situation if, other things remaining unchanged, the children had made no contribution. Other things, of course, need not have remained unchanged. The first of the following tables presents the several mentioned facts for all 864 families as a group; a second table presents the same facts by communities:

FAMILIES IN 8 SELECTED COMMUNITIES RECEIVING CLASSIFIED PER CAPITA WEEKLY INCOMES, WITH AND WITHOUT EARNINGS OF CHILDREN, AND PER CENT RECEIVING LESS THAN THE HIGHEST AMOUNT SPECIFIED.

Per capita weekly income.	Number of families in each per capita group with earnings of children—		Per cent of families receiving less than highest amount of specified group with earnings of children—	
	Included.	Excluded.	Included.	Excluded.
Under $0.40	1	17	0.1	2.0
$0.40 and under $0.80	6	37	.8	6.3
$0.80 and under $1.20	41	85	5.5	16.1
$1.20 and under $1.60	61	118	12.6	29.7
$1.60 and under $2	102	109	24.4	42.4
$2 and under $2.40	113	122	37.5	56.5
$2.40 and under $2.80	107	80	49.9	65.7
$2.80 and under $3.20	95	73	60.9	74.2
$3.20 and under $3.60	86	55	70.9	80.6
$3.60 and under $4	54	43	77.2	85.5
$4 and under $4.40	50	37	83.0	89.8
$4.40 and under $4.80	34	22	86.9	92.3
$4.80 and under $5.20	28	18	90.1	94.4
$5.20 and under $5.60	28	5	93.3	95.0
$5.60 and under $6	10	12	94.5	96.4
$6 and under $6.40	7	6	95.3	97.1
$6.40 and over	41	25	100.0	100.0
Total	864	864	....	....

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[a] See Tables XXVII to XXX, which give earnings, family by family, showing sources and amounts.

FAMILIES RECEIVING CLASSIFIED PER CAPITA WEEKLY INCOMES, INCLUDING EARNINGS OF CHILDREN, BY DISTRICTS.

Per capita weekly income.	Number receiving classified amounts.								
	Pittsburg.	Ohio River district.	Olean-Bradford district.	New Jersey, glass town.	Philadelphia.	Pennsylvania glass town.	Morgantown district.	Indiana city.	Total.
Under $1.20	12	11	3	3	12	4	2	1	48
$1.20 and less than $1.60	14	13	7	1	14	7	2	3	61
$1.60 and less than $2	16	22	18	8	12	13	6	7	102
$2 and less than $2.40	20	23	10	13	13	13	13	8	113
$2.40 and less than $2.80	20	23	13	10	11	5	20	5	107
$2.80 and less than $3.20	15	16	9	13	18	10	10	4	95
$3.20 and less than $3.60	15	22	9	13	7	10	5	5	86
$3.60 and less than $4	10	15	7	2	2	8	6	4	54
$4 and over	24	54	27	30	8	15	18	22	198
Total	146	199	103	93	97	85	82	59	864
	Per cent receiving less than specified amounts.								
$1.20	8.2	5.5	2.9	3.2	12.4	4.7	2.4	1.7	5.6
$1.60	17.8	12.1	9.7	4.3	26.8	12.9	4.9	6.8	12.6
$2	28.8	23.1	27.2	12.9	39.2	28.2	12.2	18.6	24.4
$2.40	42.5	34.7	36.9	26.9	52.6	43.5	28.0	32.2	37.5
$2.80	56.2	46.2	49.5	37.6	63.9	49.4	52.4	40.7	49.9
$3.20	66.4	54.3	58.3	51.6	82.5	61.2	64.6	47.5	60.9
$3.60	76.7	65.3	67.0	65.6	89.7	72.9	70.7	55.9	70.8
$4	83.6	72.9	73.8	67.7	91.8	82.4	78.0	62.7	77.1

FAMILIES RECEIVING CLASSIFIED PER CAPITA WEEKLY INCOMES, EXCLUDING EARNINGS OF CHILDREN, BY DISTRICTS.

Per capita weekly income.	Number receiving classified amounts.								
	Pittsburg.	Ohio River district.	Olean-Bradford district.	Southern New Jersey, town.	Philadelphia.	Charleroi.	Morgantown district.	Terre Haute.	All communities.
Under $1.20	24	35	11	8	29	13	11	8	139
$1.20 and less than $1.60	17	27	16	13	15	15	9	6	118
$1.60 and less than $2	23	20	14	7	11	14	14	6	109
$2 and less than $2.40	23	23	16	15	15	9	14	7	122
$2.40 and less than $2.80	12	22	6	13	10	2	10	5	80
$2.80 and less than $3.20	10	13	12	6	8	12	6	6	73
$3.20 and less than $3.60	11	12	9	5	3	6	2	7	55
$3.60 and less than $4	9	6	6	8	1	5	4	4	43
$4 and over	17	41	13	18	5	9	12	10	125
Total	146	199	103	93	97	85	82	59	864
	Per cent receiving less than specified amounts.								
$1.20	16.4	17.6	10.7	8.6	29.9	15.3	13.4	13.6	16.1
$1.60	28.1	31.2	26.2	22.6	45.4	32.9	24.4	23.7	29.7
$2	43.8	41.2	39.8	30.1	56.7	49.4	41.5	33.9	42.4
$2.40	59.6	52.8	55.3	46.2	72.2	60.0	58.5	45.8	56.5
$2.80	67.8	63.8	61.2	60.2	82.5	62.4	70.7	54.2	65.7
$3.20	74.7	70.4	72.8	66.7	90.7	76.5	78.0	64.4	74.2
$3.60	82.2	76.4	81.6	72.0	93.8	83.5	80.5	76.3	80.6
$4	88.4	79.4	87.4	80.6	94.8	89.4	85.4	83.1	85.5

The significance of these tables is, of course, evident. They indicate, as has already been stated, that the several families scheduled were, from the standpoint of income, and thus impliedly of comfortable living, far from being of a uniform class. The income groups listed, each of a considerable membership, range from what is necessarily intense poverty to what may well be considered as comparative affluence. The second table shows that the relation of poverty to well-being is by no means uniform in the several communities, but in every case there is, from the standpoint of income, the same wide distribution of families, and in every case there is a considerable group of families receiving very low incomes. This being so, the following discussion may be limited to the combined facts shown in the first of the foregoing tables.

It would be very desirable, of course, to be able to erect an income standard of living, to definitely fix an income amount below which actual poverty could be assumed as a corollary and above which comfortable, or at least decent, living could be assumed as easily possible. It is impracticable to attempt the erection of an inflexible standard. The present investigation was primarily concerned with income, not with expenditure, and thus did not develop material upon the cost of living.

For the purpose of briefer and more pointed discussion a working standard is desirable; and that represented by a $2 weekly per capita income has been selected as a reasonable one. It is at least a minimum one for the vast majority of families. It is not intended, however, to insist upon the correctness of the $2 standard, and it is to be specifically noted that all the following facts and figures are so presented in group form that, within rather broad limits, the reader may erect whatever standard he may prefer. If such preferred standard is in any degree a reasonable one, the general trend of the text discussion will not be seriously affected.

Accepting, therefore, the $2 weekly per capita income as marking as it were the "line of poverty," it would appear that 498 of the 864 families concerned (57.6 per cent) were above such poverty line, even when the earnings of children were excluded. In none of these families, therefore, could it be considered that child labor was economically necessary. The only circumstance that could invalidate such conclusion in regard to any one of these families would be that the family did not have freedom of choice in its expenditures. Concerning this, it can only be said that so far as could be ascertained none of the whole group of 864 families was so limited. That is to say, none was required to use any significant portion of its income for the payment of past debts, for the maintenance of other persons than those of the immediate household, or for other extraordinary expenditure of any kind.(a) It may then be concluded that each of this

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[a] Some families were purchasing their homes on the installment plan, but the existence of such a debt can not be considered as restricting the family's freedom of expenditure in the sense here attributed to these words. Such a family could, at most, forego its attempt to purchase.

group of 498 families was in possession of an income which, even if the children had not worked, would have placed them above the immediate pressure of poverty. With none of them was actual economic necessity the primary motive for child labor. Such a conclusion seems safely warranted if the standard suggested be accepted as a reasonable one.

Concerning the status of the remaining 366 families, definite conclusions can not be reached so readily. The table makes clear that there was a group of 211 families whose full incomes during the year were below the $2 standard, and that if the earnings of children be excluded their number would increase to 366. It can not be assumed from this, however, that the elimination of the children's earnings would necessarily have reduced the income of these families, reducing some below the standard and intensifying the poverty of those already below the standard. Such a result would only follow if such families had no reserve resources to compensate for the loss. If such resources had existed and could have been availed of if the children had not worked, then it can not be accepted that economic necessity was the primary motive for the children's being at work.

This is a matter of very great importance, concerning as it does the very vital question as to how far the cessation of child labor would necessarily reduce the standard of living of those affected by such cessation, especially of those whose living standard is already low. Therefore it is necessary to inquire somewhat fully into the existence among such families of possible compensating resources which might be availed of in case the contributions of children were withdrawn.

Broadly speaking, there are two possible resources of the kind suggested. One of these possibilities is that a family may possess property of some sort which could be capitalized and converted to immediate use. The second possibility is that the adult members of a family may be exploiting the child by unjustified idling.

First, the ownership of property as a reserve fund: It is, of course, evident that the income of a family, as listed in such tables as the preceding, may not be a complete measure of the family's financial situation. All varieties of income are not of equal value. A family whose income consists of $800 a year derived entirely from the labor of its members is not in the same, nor in as favorable, financial position as one whose income, while of the same amount, comes in wholly or partially in the form of interest or rent from property, for interest or rent presumes an original fund capable of capitalization. From the standpoint of the present inquiry, this difference is of much importance. Given a family with an income derived from investment, the question may well arise whether such a family should not sacrifice a portion of the principal of its investment rather than send its children to work prematurely.

An examination of the 864 families concerned upon this point develops the following results: Of the total of 864 families, 730 (84.5 per cent) received their incomes exclusively in the form of labor earnings. In each of the remaining 134 cases (15.5 per cent) income was partly from labor earnings, but was supplemented to a greater or less extent by incomes derived from other sources. The character and importance of these supplemental incomes is shown in the following table:

NUMBER OF FAMILIES IN 8 SELECTED COMMUNITIES RECEIVING INCOME SUPPLEMENTAL TO THEIR WAGES AND AVERAGE AMOUNT OF SUCH INCOME.

Character of income.	Number of families.	Average amount per family.
Interest or rent from property	32	$177
Sales of property	1	700
Insurance (life)	8	434
Pensions and sick benefits	8	242
Rent of part of house	26	91
Garden and poultry	37	93
Aid from children and relatives	19	[a] 145
Miscellaneous (but not from property)	3	211
Total	134	....

[a] Not including one family for whom amount of income was not reported.

It is seen from this table that of the 134 families possessed of sources of income other than their personal labor, there were 32 which received such income in the form of interest or rent, and thus may be assumed to have had an actual invested fund capable of capitalization. Such was not the case with the remaining 102 families credited with having received supplemental incomes from the seven other listed sources. None of these other sources represent convertible funds. An income from the sale of property or from insurance is not recurrent, and while incomes from premiums, benefits, rent of rooms, gardens, and gifts may be recurrent, they are in no sense capable of capitalization. All these latter forms of income, therefore (that is to say, all of those enumerated in the table except interest and rent from property), are, for the practical purpose of measuring the financial standing of a family, in precisely the same class as labor earnings. Thus it may be concluded that the preceding table is accurately representative of the financial situation of all of the 864 families concerned with the exception of the mentioned 32 property owners. These 32 (3.7 per cent) are clearly distinguished from the remaining 832 families (96.3 per cent) in the fact of the possession of capital funds. The importance of such distinction in each case depends, of course, upon the size of that fund.

It becomes necessary, therefore, to consider the facts regarding these 32 cases in some detail. This is done in the following table, which lists separately for each of the 32 families concerned the following facts:

The character of the income from property, the amount thereof, its estimated capitalized value, and the weekly per capita income of the family. The families, it will be noted, are arranged in ascending order of the amount of weekly per capita income, excluding the earnings of children. Income from rent (gross) has been capitalized on a 10 per cent basis; income from interest on a 5 per cent basis.

DETAILED INCOME FROM RENT AND INTEREST OF 32 FAMILIES, AND PER CAPITA WEEKLY INCOME, WITH AND WITHOUT EARNINGS OF CHILDREN.

Family number.	Character of income.	Amount of income.	Estimated capital value (rent at 10 per cent, interest at 5 per cent).	Per capita weekly income with earnings of children—	
				Included.	Excluded.
1	Rent	$48	$480	$2.04	$0.88
2	.....do	110	1,100	3.54	1.10
3	.....do	120	1,200	1.94	1.54
4	.....do	86	860	1.98	1.62
5	.....do	160	1,600	2.16	1.80
6	.....do	198	1,980	2.36	1.80
7	.....do	140	1,400	1.96	1.82
8	.....do	150	1,500	3.68	2.20
9	.....do	190	1,900	2.72	2.28
10	.....do	604	6,040	3.72	2.42
11	.....do	26	260	2.80	2.70
12	.....do	120	1,200	2.94	2.76
13	.....do	72	720	3.48	2.80
14	.....do	60	600	2.92	2.84
15	.....do	96	960	4.10	2.88
16	.....do	195	1,950	3.38	2.90
17	.....do	116	1,160	3.94	3.00
18	.....do	106	1,060	3.38	3.04
19	Interest	277	5,540	3.48	3.12
20	Rent	195	1,950	4.98	3.30
21	.....do	90	900	4.62	3.48
22	.....do	192	1,920	4.28	3.58
23	.....do	120	1,200	3.80	3.68
24	.....do	120	1,200	4.74	3.68
25	.....do	140	1,400	4.40	4.00
26	.....do	72	720	4.16	4.14
27	.....do	240	2,400	4.36	4.16
28	Interest	792	15,840	6.36	4.38
29	Rent	48	480	5.02	4.68
30	.....do	288	2,880	5.16	4.76
31	Interest	300	6,000	5.08	4.80
32	Rent	180	1,800	8.08	8.06

It appears from this list that of the 32 families owning productive property 7 were of the group of 366 families with weekly per capita incomes of less than $2. Examination of the computed capital value of the property owned by these 7 families shows that in every case such property was sufficient, if converted into money, to have postponed for a very considerable period the sending of the children to work, without there resulting any immediate lowering of the family's standard of living. Whether or not such families should have availed themselves of the evident alternative is, of course, subject to dispute. If it is considered that it should have been availed of, then these 7 families should be excluded from the class of 366 families shown in the preceding table to have been in receipt of incomes below the $2 weekly per capita standard. In any case, the number of families affected is too small to seriously affect conclusions, whether or not they are excluded. Only 7 families out of the total of 366 with weekly per capita income of less than $2 possessed any such property. The remaining 359 were dependent upon sources of income, chiefly labor earnings, which were not subject to capitalization.

The importance of the second suggested resource—the possibility that the adult members of a family were exploiting the children, and therefore could have compensated for an elimination of the children's contributions by increased activity at work—must be considered. If there were such families, whose poverty, real or potential, was due to the negligence of the adult members, it can not be properly held that with them child labor was primarily due to economic necessity.

Negligence, it is to be observed, is here used as equivalent to unjustified unemployment. It is assumed that if the adult members of a family have worked regularly during the year, without being able thereby to supply the necessary family needs, the low per capita income can not be attributed to their negligence. This, of course, is not strictly true, but it is the only available, and, for the most part, is a satisfactory, measure of the facts being considered. A family may be in receipt of a low per capita income, not because of present lack of industry on the part, say, of the father, but because of his past failure to avail himself of his opportunities and become a more highly paid workman. This possibility, however, while it may explain the situation, does not in any way affect the fact that his present earning capacity is what it is. Again, it may happen that even although an individual works regularly, he does not work to his full ability, if a pieceworker, or has not exercised due energy in the seeking of a more lucrative position. Such instances are possible, but they are certainly not frequent. On the whole, therefore, it would appear that regularity of work, or the endeavor to work regularly, is a fair measure of an individual's serious endeavor to help his family. If he has so worked, or endeavored to work, it may be reasonably assumed that he possesses no reserve factor to compensate for the diminution in the family income due to other causes, such as the elimination of the children's earnings.

On this basis the employment of the adult members of the selected 864 families will be examined. Two points are to be considered: First, the regularity of employment, and, second, the justification of unemployment. It is desired to know in what degree the adult members of these families worked or failed to work regularly, and if failing to do so, whether they were justified in their failure by circumstances outside their control.

The information to be presented in developing these points is largely tabular, the tables requiring merely an explanation of the manner in which the material was obtained and interpreted. One general preliminary statement, hovewer, is necessary—that no attempt is here made to estimate or tabulate the regularity of work on the part of mothers. In a very large number of the scheduled families the mother was prevented by household necessities from engaging in wage-earning work. In such cases the question of regularity of work assumes an entirely different significance than in the case of fathers or sons or daughters who had no restraining household duties to interfere with their regular employment at some form of lucrative industry. No instance was found of a mother's shirking her family responsibilities or exploiting her children. If she was not a contributor of money to the household support when the household needed money, it was because other duties interfered. Strictly speaking, therefore, a tabulation of mothers' regularity of work should show all of them working a full year, although few of them may have received specific pay for their work or have been employed outside their own homes. To attempt tabulation in such a case seems superfluous.

Limiting attention, therefore, to adults other than mothers, the matter of their regularity of work, regardless of possible justification for irregularity, will first be considered. Each of the 864 families concerned contained a father or a mother or both. In 169 the father, whether through death, divorce, desertion, or incapacity, was no longer a possible contributor, and in 47 of these 169 there were no other adults than the mothers able to contribute. In other words, in each of 47 of the 864 families (27.8 per cent) the family membership consisted solely of mother and children under 16 years of age. If no other source of sufficient income existed, it is clear that in such families the mother or children or both must work or depend on charity. Such other sources did exist in 9 of these 47 families, and in 2 this other source was of much importance; 1 family (mother, child, and wholly incapacitated father) received $624 from fraternal orders and benefits, and the other (mother and child) received $780 from investments. In both of these cases it is evident that income from the mentioned other sources was sufficient to preclude child labor as an economic necessity. In each of the 7 other cases, however, the supplemental income was insufficient of itself to give the family a weekly per capita income of as much as $2. In 5 families such income was of a less per capita value than $0.80 a week, and in the remaining 2 was well under $2.

Thus it may be said that of the 47 families with no adult members except the mother 2 were independent of personal labor, and the fact that the children of these 2 families were at work could not be attributed to economic necessity. In each of the remaining 45 families it is clearly evident that, in order to live, either the mother or the child or both had to work, or else depend on public aid of some sort. In every such case the mother did actually work to the full of her ability, although such work could not always take the form of work for wages, and therefore is not subject to exact tabulation.

No further consideration need be given these 45 families. They are in a distinct group. Their low incomes were due to outside circumstances. With them it is unnecessary to inquire further as to the factors making for child labor. Economic necessity is the palpable primary cause. These 45 families, therefore, may be eliminated from further discussion. The elimination is made in the following table. To render the resulting data uniform, the 2 families, with no other adult members than the mothers, but with outside incomes sufficient for support without the children's labor, are also included in the elimination. The existence of these 2 families is, however, to be borne in mind.

CLASSIFIED PER CAPITA WEEKLY INCOME OF FAMILIES IN 8 SELECTED COMMUNITIES HAVING AND NOT HAVING ADULT MEMBERS EXCEPT MOTHER ABLE TO CONTRIBUTE.

Per capita weekly income.	All families.		Families with no adults except mother able to contribute.		Families with at least one adult member other than mother able to contribute.			
	Number with earnings of children—		Number with earnings of children—		Number with earnings of children—		Per cent of families receiving no more than highest amount of specified group.	
	Included.	Excluded.	Included.	Excluded.	Included.	Excluded.	Included.	Excluded.
Under $0.40	1	17	....	13	1	4	0.1	0.5
$0.40 and under $0.80	6	37	1	13	5	24	.7	3.4
$0.80 and under $1.20	41	85	9	7	32	78	4.7	13.0
$1.20 and under $1.60	61	118	7	4	54	114	11.3	26.9
$1.60 and under $2	102	109	4	1	98	108	23.3	40.1
$2 and under $2.40	113	122	8	6	105	116	36.1	54.3
$2.40 and under $2.80	107	80	5	....	102	80	48.6	64.1
$2.80 and under $3.20	95	73	6	1	89	72	59.5	72.9
$3.20 and under $3.60	86	55	....	....	86	55	70.0	79.7
$3.60 and under $4	54	43	2	....	52	43	76.4	84.9
$4 and under $4.40	50	37	2	1	48	36	82.3	89.3
$4.40 and under $4.80	34	22	....	....	34	22	86.4	92.0
$4.80 and under $5.20	28	18	....	....	28	18	89.8	94.2
$5.20 and under $5.60	28	5	2	....	26	5	93.0	94.8
$5.60 and under $6	10	12	....	....	10	12	94.2	96.3
$6 and under $6.40	7	6	....	....	7	6	95.1	97.0
$6.40 and over	41	25	1	1	40	24	100.0	100.0
Total	864	864	47	47	817	817	....	....

The latter two sections of this table exhibit the financial situation of the 817 families which were homogeneous to the extent of possessing at least one contributable adult member besides the mother. Regarding these adults, the proposed inquiry concerning regularity of employment may now be made. The information upon this point is complete and closely accurate. In the obtaining of every family schedule inquiry was made as to the number of days worked by each member of the family during the preceding year. As a rule the answers could be given, and were given, with close precision for all persons except the mother, who, for reasons previously cited, is therefore not included in the tabular presentation of data. The data for the other members that is to say, fathers, other males and females (except mother) are presented in the two following tables.

The first table groups separately fathers, other adult males, and adult females (other than mother) within the previously used per capita weekly groups (excluding earnings of children) and classifies those of each group according to the number of days worked during the year. The second table exhibits the same facts in cumulative form.

ADULT MEMBERS OF FAMILIES OTHER THAN MOTHERS RECEIVING EACH CLASSIFIED PER CAPITA WEEKLY INCOME, BY NUMBER OF DAYS WORKED PER YEAR, FOR 8 SELECTED COMMUNITIES.

Per capita weekly income.	Total individuals.	Number of individuals of specified group working—							Per cent of individuals of specified group working as many as or more than—					
		Under 50 days	50 to 99 days	100 to 149 days	150 to 199 days	200 to 249 days	250 to 299 days	300 days and over.	50 days.	100 days.	150 days.	200 days.	250 days.	300 days.
FATHERS.														
Under $1.60	183	3	9	18	47	51	30	25	98.4	93.4	83.6	57.9	30.1	13.7
$1.60 and under $2	87	1	3	6	15	25	19	18	98.9	95.4	88.5	71.3	42.5	20.7
$2 and under $2.40	101	.....	5	5	18	25	20	28	100.0	95.0	90.1	72.3	47.5	27.7
$2.40 and under $2.80	67	.....	2	4	8	13	16	24	100.0	97.0	91.0	79.1	59.7	35.8
$2.80 and under $3.20	63	.....	.....	3	7	18	9	26	......	100.0	95.2	84.1	55.6	41.3
$3.20 and under $3.60	46	.....	1	1	3	13	11	17	100.0	97.8	95.7	89.1	60.9	37.0
$3.60 and under $4	36	1	1	2	5	4	7	16	97.2	94.4	88.9	75.0	63.9	44.4
$4 and over	112	.....	2	7	10	32	22	39	100.0	98.2	92.0	83.0	54.5	34.8
OTHER MALES.														
Under $1.60	57	2	10	4	9	13	15	4	96.5	78.9	71.9	56.1	33.3	7.0
$1.60 and under $2	48	1	2	4	10	17	12	2	97.9	93.7	85.4	64.6	29.2	4.2
$2 and under $2.40	73	1	3	3	7	26	18	15	98.6	94.5	90.4	80.8	45.2	20.5
$2.40 and under $2.80	54	2	1	3	6	22	13	7	96.3	94.4	88.9	77.8	37.0	13.0
$2.80 and under $3.20	72	2	3	3	14	21	20	9	97.2	93.1	88.9	69.4	40.3	12.5
$3.20 and under $3.60	46	.....	1	1	6	19	8	11	100.0	97.8	95.7	82.6	41.3	23.9
$3.60 and under $4	46	2	.....	3	5	11	16	9	95.7	95.7	89.1	78.3	54.3	19.6
$4 and over	144	8	.....	2	13	46	30	45	94.4	94.4	93.1	84.0	52.1	31.3
FEMALES (other than mothers).														
Under $1.60	80	24	6	6	14	10	10	10	70.0	62.5	55.0	37.5	25.0	12.5
$1.60 and under $2	53	18	.....	2	4	10	11	8	66.0	66.0	62.3	54.7	35.8	15.1
$2 and under $2.40	74	16	2	5	7	16	20	8	78.4	75.3	68.9	59.5	37.8	10.8
$2.40 and under $2.80	46	12	1	3	2	10	8	10	73.9	71.7	65.2	60.9	39.1	21.7
$2.80 and under $3.20	48	8	3	2	5	12	9	9	83.3	77.1	72.9	62.5	37.5	18.8
$3.20 and under $3.60	31	7	1	.....	6	1	11	5	77.4	74.2	74.2	54.8	51.6	16.1
$3.60 and under $4	32	8	.....	3	.....	2	10	9	75.0	75.0	65.6	65.6	59.4	28.1
$4 and over	60	21	.....	3	3	11	11	11	65.0	65.0	60.0	55.0	36.7	18.3

ADULT MEMBERS OF FAMILIES OTHER THAN MOTHERS RECEIVING LESS THAN SPECIFIED PER CAPITA WEEKLY INCOME, BY NUMBER OF DAYS WORKED PER YEAR, FOR 8 SELECTED COMMUNITIES.

Per capita weekly income.	Total individuals.	Number of individuals of specified group working—							Per cent of individuals of specified group working as many as or more than—					
		Under 50 days	50 to 99 days	100 to 149 days	150 to 199 days	200 to 249 days	250 to 299 days	300 days and over.	50 days.	100 days.	150 days.	200 days.	250 days.	300 days.
FATHERS.														
Less than $1.60	183	3	9	18	47	51	30	25	98.4	93.4	83.6	57.9	30.1	13.7
Less than $2	270	4	12	24	62	76	49	43	98.5	94.1	85.2	62.2	34.1	15.9
Less than $2.40	371	4	17	29	80	101	69	71	98.9	94.3	86.5	65.0	37.7	19.1
Less than $2.80	438	4	19	33	88	114	85	95	99.1	94.7	87.2	67.1	41.1	21.7
Less than $3.20	501	4	19	36	95	132	94	121	99.2	95.4	88.2	69.3	42.9	24.1
Less than $3.60	547	4	20	37	98	145	105	138	99.3	95.6	88.8	70.9	44.4	25.2
Less than $4	583	5	21	39	103	149	112	154	99.1	95.5	88.8	71.2	45.6	26.4
$4 and over	112	.....	2	7	10	32	22	39	100.0	98.2	92.0	83.0	54.5	34.8
OTHER MALES.														
Less than $1.60	57	2	10	4	9	13	15	4	96.5	78.9	71.9	56.1	33.3	7.0
Less than $2	105	3	12	8	19	30	27	6	97.1	85.7	78.1	60.0	31.4	5.7
Less than $2.40	178	4	15	11	26	56	45	21	97.8	89.3	83.1	68.5	37.1	11.8
Less than $2.80	232	6	16	14	32	78	58	28	97.4	90.5	84.5	70.7	37.1	12.1
Less than $3.20	304	8	19	17	46	99	78	37	97.4	91.1	85.5	70.4	37.8	12.2
Less than $3.60	350	8	20	18	52	118	86	48	97.7	92.0	86.9	72.0	38.3	13.7
Less than $4	396	10	20	21	57	129	102	57	97.5	92.4	87.1	72.7	40.1	14.4
$4 and over	144	8	.....	2	13	46	30	45	94.4	94.4	93.1	84.0	52.1	31.3
FEMALES (other than mothers).														
Less than $1.60	80	24	6	6	14	10	10	10	70.0	62.5	55.0	37.5	25.0	12.5
Less than $2	133	42	6	8	18	20	21	18	68.4	63.9	57.9	44.4	29.3	13.5
Less than $2.40	207	58	8	13	25	36	41	26	72.0	68.1	61.8	49.8	32.4	12.6
Less than $2.80	253	70	9	16	27	46	49	36	72.3	68.8	62.5	51.8	33.6	14.2
Less than $3.20	301	78	12	18	32	58	58	45	74.1	70.1	64.1	53.5	34.2	15.0
Less than $3.60	332	85	13	18	38	59	69	50	74.4	70.5	65.1	53.6	35.8	15.1
Less than $4	364	93	13	21	38	61	79	59	74.4	70.9	65.1	54.7	37.9	16.2
$4 and over	60	21	.....	3	3	11	11	11	65.0	65.0	60.0	55.0	36.7	18.3

Some interesting and important comparisons are suggested by the data of the first of the foregoing tables. Thus it may be observed that as a rule the higher the per capita income the larger the percentage of employment among the individuals of the group. This increased regularity of employment is indeed responsible for the higher incomes, but that it is not the sole cause is evident from the irregularity of increase in the upper per capita groups. The present concern, however, lies less with comparative degree of employment of different groups than with the absolute amounts of unemployment among the lower per capita groups. Thus adhering to the $2 weekly per capita standard as a tentative measure of what has been called the "poverty line" an examination of the second table shows that of the 270 fathers in families with incomes of less than that amount only 34.1 per cent worked as much as 250 days, which is at least a possible maximum in nearly all lines of industry, and only 62.2 per cent worked as much as 200 days. The data for the 105 other male adults shows almost precisely similar results, the corresponding percentage figures being 31.4 and 60, respectively. For females a much greater degree of unemployment is evidenced, considerably less than one-half (44.4 per cent) working as much as 200 days, and almost a third (31.6 per cent) working less than 50 days.

No attempt has been made to relate the facts for the three classes of individuals—to show, in other words, the amount of unemployment among all the members of a family able to work. Such a combination, while easily possible, would be seriously weakened in its effect by the presence of the females, whose opportunities of obtaining work are usually less than those of males, and, in view of facts to be later presented, is not necessary to the present discussion. The point to be here developed, and for the purpose the preceding table is sufficient, is that among all the families concerned, and especially among those of the lower-income groups, a very considerable degree of unemployment existed. Classing together all male adults in families with per capita weekly incomes of less than $2, barely one-tenth (13.1 per cent) worked a full year of 300 days, only one-third (33.3 per cent) worked as much as 250 days, and some did not work as much as 200 days. From this it would follow that the fact of low income in such cases was due in considerable part to failure to work regularly throughout the year. This brings the discussion to the second of the suggested points: Was this failure to work regularly due to negligence on the part of the individuals concerned or was it due to the fact of outside circumstances—sickness, accident, inability to obtain employment, etc.?

From the child-labor standpoint the mere fact of unemployment is not sufficient explanation of poverty. It must be known to what extent such unemployment was remediable within the power of the individual. To repeat a statement earlier made, it can not be accepted that the elimination of the earnings of the child members of a family would necessarily reduce the family's standard unless the situation is such that there is no compensating factor which might be availed of—such a factor as that of increased industry on the part of the adult members.

If it is established that in a family with a low income the adult members either worked full time or used every reasonable effort to do so, then it may be concluded that in such case economic necessity is acceptable as the primary motive for child labor. If, on the other hand, it is established that the adult members did not work full time and did not even make a reasonable effort to do so, then the suggested contention of poverty as a reason for child labor would not hold. The establishment of the contrasting facts of industry and inexcusable idleness is therefore of prime importance.

The obtaining of correct information as regards the justifiableness of unemployment was a matter of considerably more difficulty than the obtaining of information regarding unemployment itself. Certain of the difficulties are obvious. In the first place there is necessary a preliminary determination of what constitutes regularity of work, or, more specifically, what constitutes a full year's work. The maximum working year is commonly placed at 300 days, this being the maximum number of working days. In a number of trades, however, 300 days, while a maximum, is rarely a possible full year. A mason, for instance, is arbitrarily limited by the weather; a coal miner can seldom work every day in the year, because the mine is almost certain to be closed a day or two now and then; a bottle blower in most factories does not have employment at his trade during the months of July and August, and even if he needs and seeks other summer employment several days' lost time is almost certain to result. A glass worker in a glass district may well find it impossible to obtain much temporary employment unless he travels a considerable distance, for if the glass industry is important in the community and all the factories close for the summer season there is necessarily a surplus of idle laborers. The correct classification of such cases as these is one of the two principal difficulties.

The second principal difficulty concerns the original obtaining of correct answers to the question why full time was not worked by individuals wholly or partially idle during the year. Sickness as an offered reason usually could be verified, but when "slack work" was submitted verification was less easy. The personal element here entered, and it was sometimes exceedingly difficult to determine with precision whether the situation involved real slackness of work or simply slackness in the seeking of work. On the whole, however, this latter difficulty was not as disturbing a factor as it might appear to have been. Each of the eight communities now being considered was sufficiently studied to make possible a fair conclusion as to just what extent and in just what seasons an able-bodied worker may have found it difficult, if not actually impossible, to secure work. This general information regarding industrial conditions in the community, when checked against the family's situation and character, permitted in almost every case a correct judgment in the matter.

Because of these evident impediments, however, an analysis of unemployment on the basis of justifiableness and unjustifiableness must necessarily rest upon certain more or less arbitrarily determined premises. For reasons previously cited mothers are excluded from the study. Concerning the unemployment of the remaining members of each family the following rules were followed:

Invalids and those mentally unsound have been classed as justified in their permanent idleness, as is also one older daughter in a family of nine or more members. For such adults as were not of these classes regular employment has been attributed (1) to those who, employed at an establishment which operated as much as ten months in the year, worked the full period of its operation; (2) to those who, employed at seasonal trades, worked as frequently as the weather permitted; (3) to those who in independent trades or business devoted their whole attention to such trades or business, although it may not have given them actual work every working day of the year; and (4) to those who as casual laborers worked as much as forty-five weeks in the year. Failure to fulfill these conditions has been justified as beyond the control of the individual when it was due to sickness, injury, or other calamity or to actual and substantiated inability to obtain work.

Following this method of interpretation, the following results have been obtained: Of the total of 817 families remaining after excluding, for reasons given, the 47 families in which the mother was the sole adult able to contribute, it was found that in 180 (22 per cent) there was some unjustified idleness among some or all of the able-bodied adult members. In the remaining 637 families (78 per cent) every possible adult contributor had either worked full time during the year or was justified by outside circumstances in not doing so. The following tables show the distribution of these two classes of families according to the annual per capita income of each and according to the presence or absence of a father able to contribute. The per capita grouping is made after the earnings of children have been excluded. The first table considers each per capita group separately. The second table considers the cumulative number of families occurring below the upper income amounts of the specified per capita groups.

NUMBER AND PER CENT OF FAMILIES WITH ADULTS ABLE TO CONTRIBUTE WHO WERE WORKING OR JUSTIFIABLY IDLE AND WHO WERE UNJUSTIFIABLY IDLE, BY CLASSIFIED PER CAPITA WEEKLY INCOME, FOR 8 SELECTED COMMUNITIES.

Per capita weekly income.	Number of families.	Families with all adults able to contribute working full year or, if not, justifiably idle.		Families with all or some adults who were able to contribute unjustifiably idle whole or part of year.	
		Number.	Per cent.	Number.	Per cent.
WITH FATHERS ABLE TO CONTRIBUTE.					
Under $1.60	183	127	69.4	56	30.6
$1.60 and under $2	87	60	69.0	27	31.0
$2 and under $2.40	101	77	76.2	24	23.8
$2.40 and under $2.80	67	52	77.6	15	22.4
$2.80 and under $3.20	63	49	77.8	14	22.2
$3.20 and under $3.60	46	43	93.5	3	6.5
$3.60 and under $4	36	26	72.2	10	27.8
$4 and over	112	99	88.4	13	11.6
Total	695	533	76.7	162	23.3
WITH FATHERS UNABLE TO CONTRIBUTE.					
Under $1.60	37	31	83.8	6	16.2
$1.60 and under $2	21	21	100.0	....	.0
$2 and under $2.40	15	13	86.7	2	13.3
$2.40 and under $2.80	13	13	100.0	....	.0
$2.80 and under $3.20	9	5	55.6	4	44.4
$3.20 and under $3.60	8	5	62.5	3	37.5
$3.60 and under $4	8	7	87.5	1	12.5
$4 and over	11	9	81.8	2	18.2
Total	122	104	85.2	18	14.8
TOTAL.					
Under $1.60	220	158	71.8	62	28.2
$1.60 and under $2	108	81	75.0	27	25.0
$2 and under $2.40	116	90	77.6	26	22.4
$2.40 and under $2.80	80	65	81.3	15	18.7
$2.80 and under $3.20	72	54	75.0	18	25.0
$3.20 and under $3.60	54	48	88.9	6	11.1
$3.60 and under $4	44	33	75.0	11	25.0
$4 and over	123	108	87.8	15	12.2
Total	817	637	78.0	180	22.0

NUMBER AND PER CENT OF FAMILIES WITH ADULTS ABLE TO CONTRIBUTE WHO WERE WORKING OR JUSTIFIABLY IDLE AND WHO WERE UNJUSTIFIABLY IDLE, RECEIVING LESS THAN SPECIFIED PER CAPITA WEEKLY INCOME, FOR 8 SELECTED COMMUNITIES.

Per capita weekly income.	Number of families.	Families with all adults able to contribute working full year, or, if not, justifiably idle.		Families with all or some adults who were able to contribute unjustifiably idle whole or part of year.	
		Number.	Per cent.	Number.	Per cent.
WITH FATHERS ABLE TO CONTRIBUTE.					
Less than $1.60	183	127	69.4	56	30.6
Less than $2	270	187	69.3	83	30.7
Less than $2.40	371	264	71.2	107	28.8
Less than $2.80	438	316	72.1	122	27.9
Less than $3.20	501	365	72.9	136	27.1
Less than $3.60	547	408	74.6	139	25.4
Less than $4	583	434	74.4	149	25.6
$4 and over	112	99	88.4	13	11.6
WITH FATHERS UNABLE TO CONTRIBUTE.					
Less than $1.60	37	31	83.8	6	16.2
Less than $2	58	52	89.7	6	10.3
Less than $2.40	73	65	89.0	8	11.0
Less than $2.80	86	78	90.7	8	9.3
Less than $3.20	95	83	87.4	12	12.6
Less than $3.60	103	88	85.4	15	14.6
Less than $4	111	95	85.6	16	14.4
$4 and over	11	9	81.8	2	18.2
TOTAL.					
Less than $1.60	220	158	71.8	62	28.2
Less than $2	328	239	72.9	89	27.1
Less than $2.40	444	329	74.1	115	25.9
Less than $2.80	524	394	75.2	130	24.8
Less than $3.20	596	448	75.2	148	24.8
Less than $3.60	650	496	76.3	154	23.7
Less than $4	694	529	76.2	165	23.8
$4 and over	123	108	87.8	15	12.2

The entries of the first table offer some interesting comparisons. Thus, it may be observed that among families with noncontributable fathers unjustified idleness is considerably less than among families with contributable fathers—14.8 per cent as against 23.3 per cent. Also it may be observed that, considering both groups of families together, there is somewhat less unjustifiable idleness among those families with the higher incomes than among those with the lower incomes, but that the difference is not extremely marked.

As in the case of the table on unemployment, however, comparisons, while interesting, are of much less significance than the absolute amounts of unjustified idleness among those families of the least incomes. This is best shown in the second of the preceding tables. It appears from that table that out of the total of 328 families possessing weekly per capita incomes of less than $2, there were 239, or 72.9 per cent, in which all the adult members either worked full time or were justifiable in their idleness. In other words, it would appear that with 239 (72.9 per cent) of the families below the $2 a week standard, there was no reserve fund of labor on the part of the adults which could compensate for the loss of the children's earnings; but that with 89 such families (27.1 per cent) there was such a reserve fund. Whether such fund was sufficient to compensate for the mentioned loss would depend, in each of the 89 cases, first upon the amount of unjustified unemployment and second upon the amount of the children's contributions.

Thus, to determine whether or not increased activity on the part of the adult members of each of these 89 families could have compensated for the elimination of the children's contributions, it becomes necessary to study each case separately, from the point of view of the two suggested factors: First, the amount of unjustified unemployment, and, second, the amount of the children's contributions. The latter factor is easily available, the amount of money earned by the child member of the family being shown in the family schedule. The first factor, however, the amount of unjustified unemployment, with its corollary, the money loss of such unemployment, can not be determined absolutely. If an individual, whether because of drink, unwillingness to work, or other such reason, does not work as much as he might have worked during a year, he may be correctly classed as unjustifiably idle, and this is the basis of the classification used above. In such a case, however, there is no means of readily determining how many more days he might have been able to work if he had earnestly tried, nor what his wage return would have been for such additional work. Nevertheless, the point is of such significance in the present inquiry that, in lieu of exact data, estimates may be attempted of the money loss incurred by each family in which one or more adults were unjustifiably idle. While such estimates can not be more than approximately correct, they are of sufficient significance to warrant consideration.

The estimates to be attempted are based, therefore on two assumptions: The first assumption is that if an individual, unjustifiably idle the whole or part of a year, had not so idled, his earning capacity would have been the same as it was for the time actually worked. The few persons, all females, who had never been at work at all are credited with the average daily wage received by working females of similar age in the selected communities. The second assumption is that 250 days constitutes a fair year's work for practically all the trades open to persons affected in the communities concerned, and, therefore, with few exceptions, this has been used as a basis. The exceptions are in the case of a few occupations, such as watchmen and railroad trackmen, which offer continuous employment throughout the year.

On these basic assumptions each of the 89 families, with incomes below the $2 weekly standard here followed, and with some of their adult members unjustifiably idle during the scheduled year, have been studied and estimates made of the amount of money loss suffered by reason of such idleness. The results of this study is shown in the following table. This table presents in list form the following data for each of the 89 families being considered: The member unjustifiably idle the whole or part of the year, the daily wage of such member when working, estimated number of days lost, estimated resulting money loss, and the earnings of the child or children of the family.

The latter two columns show the amount by which the estimated money loss of idleness exceeded or failed to exceed the earnings of children. The families are arranged in the order of the decreasing importance of this excess.

ESTIMATED MONEY LOSS FROM IDLENESS IN 89 FAMILIES WITH PER CAPITA WEEKLY INCOMES OF LESS THAN $2, IN WHICH ADULT MEMBERS WERE UNJUSTIFIABLY IDLE.

[The terms "male" and "female" as used in this table refer to members of the family other than the father or mother, respectively.]

Family No.	Per capita weekly income, excluding earnings of children.	Members unjustifiably idle.	Daily wage.	Number days unjustifiably idle.	Estimated money loss of idleness.	Earnings of children under 16.	Excess of—	
							Estimated money loss above earnings of children under 16.	Earnings of children under 16 above estimated money loss.
1	$0.80	Male Female	$2.25 1.25	226 242	$508 302	$264	$546	....
2	1.08	Father	3.50	190	665	175	490	....
3	1.24	....do	3.65	171	624	146	478	....
4	1.68	Male ....do	1.50 1.50	200 100	300 150	18	432	....
5	1.24	....do	3.00	178	534	132	402	....
6	1.08	....do	3.00	172	516	156	360	....
7	1.86	Father Male	1.50 2.00	202 130	303 260	239	324	....
8	1.66	Father	3.65	151	551	240	311	....
9	1.72	Male ....do	2.50 1.25	100 100	250 125	80	295	....
10	.78	Father	2.56	150	384	92	292	....
11	1.44	....do Female	3.33⅓ .66⅔	130 94	433 63	211	285	....
12	1.52	Father Male	1.50 1.25	130 82	195 103	58	240	....
13	1.54	Father Male ....do	2.00 2.00 1.50	100 100 125	200 200 188	353	235	....
14	1.62	Father	2.00	150	300	80	220	....
15	.80	....do Female	1.40 .83⅓	96 125	134 104	50	188	....
16	1.88	Father	2.50	100	250	64	186	....
17	1.26	Male	1.50	178	267	82	185	....
18	1.50	Female	.83⅓	250	208	24	184	....
19	1.46	....do Father	2.00 1.75	175 52	350 91	271	170	....
20	1.34	....do	2.56	100	256	90	166	....
21	1.02	....do	2.00	100	200	36	164	....
22	1.58	....do	2.00	100	200	44	156	....
23	.80	....do	1.75	100	175	25	150	....
24	.86	....do	1.70	100	170	33	137	....
25	1.88	Female	.83⅓	250	208	78	130	....
26	1.24	Male	1.50	175	263	135	128	....
27	1.56	Father	4.50	133	598	482	116	....
28	1.24	Male	1.50	106	159	44	115	....
29	.88	Father	1.60	100	160	58	102	....
30	1.66	....do	4.17	70	292	193	99	....
31	.98	....do	2.50	136	340	251	89	....
32	1.76	Female	.83⅓	125	104	18	86	....
33	1.28	Father	[a] 650.00	250	650	569	81	....

[a] Yearly wage.

ESTIMATED MONEY LOSS FROM IDLENESS IN 83 FAMILIES WITH PER CAPITA WEEKLY INCOMES OF LESS THAN $2, IN WHICH ADULT MEMBERS WERE UNJUSTIFIABLY IDLE—Concluded.

Family No.	Per capita weekly income, excluding earnings of children.	Members unjustifiably idle.	Daily wage.	Number days unjustifiably idle.	Estimated money loss of idleness.	Earnings of children under 16.	Excess of—	
							Estimated money loss above earnings of children under 16.	Earnings of children under 16 above estimated money loss.
34	$0.86	Male	$0.75	220	$165	$90	$75	
35	1.24	Female	.58	178	103	36	67	
36	1.76	Father	1.75	73	128	68	60	
37	1.84	Female	.83⅓	250	208	149	59	
38	.62	do	.66⅔	170	113	66	47	
39	.90	Father	1.50	96	144	99	45	
40	.76	Male	.74	165	122	78	44	
41	1.12	Father Female	1.50 .83⅓	100 250	150 208	315	43	
42	.68	do	.83⅓	250	208	170	38	
43	1.18	Male	1.50	175	263	225	38	
44	.78	Father	1.75	90	158	132	26	
45	.94	do	1.17	70	82	57	25	
46	1.18	Female	.60	201	121	102	19	
47	1.94	do	.83⅓	250	208	192	16	
48	1.04	Father	2.00	94	188	177	11	
49	1.68	Female	.83⅓	250	208	204	4	
50	1.68	do	.83⅓	100	83	82	1	
51	1.34	Male	.66⅔	100	67	67		
52	1.34	Female	.75	75	56	56		
53	1.66	Male	.75	34	26	36		$10
54	.84	Father	1.60	100	160	174		14
55	1.62	Male	1.50	70	105	120		15
56	1.98	Father	2.25	58	131	153		22
57	1.62	Male	.50	146	73	96		23
58	1.86	Female	.83⅓	10	8	40		32
59	1.60	do	.83⅓	250	208	250		42
60	1.02	Father	1.67	32	53	99		46
61	1.66	do	2.56	100	256	312		56
62	.88	Female	.83⅓	250	208	280		72
63	1.50	Father	1.50	100	150	223		73
64	1.10	do	1.50	46	69	150		81
65	1.66	Female	.83⅓	125	104	189		85
66	1.86	Father	1.50	106	159	245		86
67	1.48	do	2.00	34	68	154		86
68	1.76	do	1.50	100	150	273		123
69	.82	do	1.67	10	17	144		127
70	1.44	Male	1.00	50	50	180		130
71	1.52	Father	1.50	100	150	283		133
72	1.28	do	2.00	25	50	184		134
73	1.02	do	1.75	97	170	304		134
74	1.38	Female	.83⅓	250	208	343		135
75	1.12	do	.83⅓	250	208	360		152
76	1.50	Father	1.50	38	57	218		161
77	1.14	do	1.00	50	50	211		161
78	1.00	do	1.50	50	75	250		175
79	.78	Female	.83⅓	250	208	384		176
80	.92	do	.50	120	60	246		186
81	1.60	do	.83⅓	250	208	400		192
82	1.20	Male	1.10	150	165	426		261
83	1.62	Father Female	1.67 .83⅓	42 100	70 83	441		288
84	.00	do	.83⅓	250	208	498		290
85	.76	do	.83⅓	125	104	413		309
86	1.44	do	1.50	173	260	591		331
87	1.44	Father	1.50	16	24	357		333
88	1.80	do	1.75	50	88	429		341
89	1.72	Female	.83⅓	250	208	750		542

An examination of this list will show that with 52 of the families the earnings of the children in each case were at least no greater than the estimated loss due to unjustified idleness on the part of all or some of the adult members. In other words, if the assumptions used in making these estimates are accepted, each of these 52 families could have compensated for the loss of their children's earnings by increased industry on the part of the idling adult members. In such cases child labor does not appear to have had economic necessity as its prime motive.

With the remaining 37 families (numbers 53 to 89), the situation was reversed. In each of these cases the money loss due to unjustified idleness on the part of the adult member was less than the earnings of the children, although in several instances the difference was very small. In none of these cases, therefore, would increased activity on the part of the idling adults have compensated for the loss of the children's earnings.

In concluding this study of family financial condition as a primary influence making for child labor, the following review may be made. The basis of the study, it will be remembered, was a group of 864 families representing eight important glass manufacturing communities. These families were alike in that each possessed at least one child at work in the glass industry. In other respects they were very unlike, especially in the matter of their per capita incomes.

Accepting, as a basis for discussion, that a weekly per capita income of $2 is the least upon which a normal family can avoid the pressure of actual poverty, it was found that 498 (57.6 per cent) of the 864 families were in possession of an income above this amount even if the earnings of their children had been excluded. With this group, therefore, it was concluded that economic necessity, as distinguished from a simple desire for money, was not the primary motive for child labor. In regard to the remaining 366 families (42.4 per cent) whose incomes, less the contributions of children, were below the $2 standard, it was concluded that the mere fact of a family's income being so low as to entail poverty could not be accepted as rendering child labor economically necessary save in the absence of two possible circumstances: First, that the family possessed no invested funds capable of conversion into a capital amount; and, second, that the low income of the family, and in consequence the apparent necessity for the children's earnings, were not due to the unjustified idling of the adult members.

Examination upon the first point of the 366 families concerned showed 7 families with property holdings, the sale of which would have enabled them to dispense with their children's earnings for a considerable period at least. Assuming, therefore, that a family so situated should sacrifice accumulated property rather than send their children to work, it would follow that with these 7 families child labor was not economically necessary.

Examined upon the second suggested point, it appeared that of the 366 families with incomes below a weekly per capita of $2, there were 47 families in each of which there were no adult members capable of contributing to the family support, except the mother, and that 45 of these 47 families had no other sources of income except the labor of the mother and children sufficient to place the family incomes above the $2 standard. As no instance was anywhere found of a mother's being unjustifiably idle, it was considered that with these 45 families the elimination of the children's earnings would have been a complete loss.

The next step was to inquire into the state of employment among the families with contributable adults other than the mother. The result was to show that there was a considerable degree of unemployment among these other males, and that an important part thereof had been without any evident justification. Narrowing the inquiry to the 328 families with incomes below the standard set and with one or more contributable adults other than the mother, it was found that in 239 of these families (72.9 per cent) there was no unjustifiable idleness on the part of any of the described class of adults, but that in the remaining 89 families (27.1 per cent) there was unjustified idleness of greater or less degree.

A detailed list of this latter group of 89 families showed that in 52 cases the estimated money loss due to unjustified idleness on the part of adults was at least equal to the earnings of the children. With these families, therefore, the elimination of child labor need not have reduced the total family income. In the remaining 37 families the earnings of the children were in excess of the estimated loss due to the unjustified idleness of the adult members, and with them in consequence it may be assumed that the elimination of the children's earnings could not have been entirely compensated for.

Summarizing this series of facts, the obtained results are as follows: Of the total of 864 families there were 314 families (36.3 per cent) in which the weekly per capita income was less than $2 and in which there were no reserve factors of any kind to fully compensate for the possible elimination of the children's earnings. These 314 families consist of the following items: (1) The 45 families with per capita incomes less than $2 a week and with no other adult members than the mother; (2) the 239 families with incomes below the $2 standard, with other adult members beside the mother, but with no such adults unjustifiably idle; and (3) the 37 families with incomes below the standard in which unjustified idleness of the adults other than the mother left a reserve fund of labor which even if availed of could not have fully met the loss of the children's earnings. From this total it is necessary to subtract the 7 families each of which possessed a convertible capital fund.

Opposed to the 314 families (36.3 per cent of the original 864), in each of which economic necessity may be assumed to have been a primary motive for child labor, are the remaining 550 (63.7 per cent) in each of which the weekly per capita income was either as much as $2 or could have been raised to that amount by conversion of capital funds or by increased industry on the part of unjustifiably idle members.

REASONS, OTHER THAN FINANCIAL, FOR CHILD LABOR IN THE GLASS INDUSTRY.

The preceding study of the financial condition of families having children at work has shown that child labor exists in many families in which financial pressure is evidently not the primary incentive to such labor. This is true, whatever reasonable standard of income be accepted as necessary for decent, or even confortable, living. When the per capita income of a family falls below that standard a condition is reached in which economic pressure will force the children to work regardless of family ideals, desires, or standards. For families living below such standard, or even for those hovering near it, the preceding study of family incomes is sufficient answer to the question why children go to work in a glass factory. Economic need dictates that the child must work, and the glass factory is probably the easiest place for it to get a job and pays the best wages.

For those families, however, whose incomes are of an amount admitting of comfortable living, other motives than economic necessity must be attributed for the fact of their children being at work. These motives, however, may still be economic to a certain extent. In number they are many, and it is impossible to give a complete catalogue of them or show their relative importance, especially as in many cases such motives are of a very mixed character. It is of importance, however, to discuss briefly some of the more evident causes of child labor other than the strictly financial one. This is particularly true, as certain of these causes are peculiarly related to the glass industry.

Of the reasons which are perhaps remotely though not immediately economic, one of the most important is the desire to have the boy learn a trade, and acquiescence in the claim set up by most glass men that to adequately learn the trade of glass blower a boy must begin young; "the younger the better." In answer to the inquiry why the boy went to work and why he went into the glass factory, there was a large number who answered that it was to learn the trade of blower, or presser, etc. Many, probably most, of these answers were genuine and sincere.

That, as was developed during this investigation, comparatively few boys who enter the "boys occupations" ever have an opportunity to become real apprentices to the blowers' trade; that it is not true that the very young boy has a better chance, and finally, that the best blowers are often those beginning the business at an age well over 16—all these things do not affect the sincerity of most parents who believe their boy will get an opportunity to learn the trade, and that the younger he begins the better will be his chances and the better blower he will make when he has learned the trade. The prevailing ideas in the industry tend to send boys to the factory young, and this mental atmosphere has its important effect.

Closely related to the apprenticeship traditions of the industry is the traditional idea that schooling beyond the ability to reckon his earnings by multiplying his production by the piece rate does not help a blower much. True, there is much of a newer sentiment among blowers in some places in favor of education, but it can not be said to have reached far as yet. Furthermore there was developed, especially in Pennsylvania, New Jersey, and West Virginia, a deep-seated distrust of the efficiency of schooling as a help to win in the battle of life if one was to be a worker at the trades or at common labor. There was, moreover, especially in the States named, almost a settled conviction that the efficiency of schools and school models and ideals and its methods of attaining them were alike inadequate to the needs of real life, and that the boy would learn more of real use to him in the factory than in the schools. This conviction was as marked among the Americans in New Jersey and Pennsylvania as it was among the foreigners, though no evidence of it was found among Americans in Indiana, Ohio, or Illinois, where the schools were considered by the parents interviewed to be considerably more efficient.

There is little doubt that this conviction of the essential inadequacy of the schools in many places, as compared with actual work in factories as a means of practical education, is the basic reason for many parents sending their boys to, or at least permitting their boys to work in, the glass factories. "I'd like to know what he is going to learn in school that he can make $7 a day at when he gets to be a man," was the remark of a Pittsburg mother of an American boy whom she felt sure would be the one selected for apprenticeship and ultimately learn the trade of blower.

In the case of immigrants, especially those of Lutheran or Catholic faith and training, another factor in the problem is met with. The purposes, aims, and ideals of public state schools is essentially different from that of the church supported schools of central Europe. The latter equip the child for admission to the church. "Confirmation" is the end in view. When this has been secured, the boy's or girl's education is complete for the great masses of people. With this idea of school, with this purpose of school, all immigrants are familiar; with the American idea of education and schooling they are not familiar.

In very many instances the question "Why did the boy go to work?" was answered thus by the foreign-born families, "He was confirmed, why not go to work?" From their point of view, schools had nothing more to give for him. Educational readjustments will do more than any other one thing to lessen child labor in the glass industry. Make schools worth attending and then convince the parents that you have done so.

Another prolific source of child labor among immigrants is the absorbing desire to own the home. What centuries of landless tenantry and peasantry have done for the Slav is focused in his "land-hunger," his wife's "home-hunger," as soon as they strike our shores. At enormous risks they buy a home, paying a little down on it, and from that moment every particle of earning power the family possesses must be taxed to its fullest until the mortgage is paid. Whether this is a virtue or a vice, broadly considered, will not be here discussed. That the fact stands as one of the strong incentives to put children to work was developed during the course of this investigation.

Another element in the problem was company pressure, or the fear that unless the boy went into the factory the father or older members of the family would be deprived of employment. This was not generally met with. It was operative to a certain extent in New Jersey, and may have been present, though more concealed, in a few other places. This is brought out with some detail in the discussion of company stores in another part of this report.

ILLITERACY AND SCHOOL ATTENDANCE OF CHILDREN UNDER 16 YEARS OF AGE.

In the generally accepted usage literacy is taken to mean ability to read and write English. The amount of reading and writing one shall be able to do is not strictly defined; and it has come to be interpreted as the ability to read and to write one's own name. Accepting this liberal interpretation, and in the present investigation it was impracticable to erect any other standard, it developed that of the total of 1,893 children under 16 years of age at work 64, or 3.4 per cent, were absolutely illiterate and that 44 others were unable to read and write the English language, although they were able to read and write some other language. By far the largest per cent of illiteracy was among the American colored, 22.9 per cent. The American white ranked next in illiteracy with 3.7 per cent. The distribution of illiterates by nativity is shown in the following table:

NUMBER AND PER CENT OF CHILDREN UNDER 16 UNABLE TO READ AND WRITE, BY NATIVITY.

Nativity.	Number of children.	Children unable to read and write.	
		Number.	Per cent.
Native-born of native parents:			
White	709	26	3.7
Colored	61	14	22.9
Native-born of foreign parents	224	3	1.3
Foreign-born	899	21	2.3
Total	1,893	64	3.4

The majority had had a fair amount of schooling. Of the 1,893 children in question only 272, or 14.3 per cent, had attended school less than 40 months, and 7 of these had never attended school at all.

The following table shows the number of months of school attendance and the racial distribution of those who had attended school less than 40 months. It will be noted that 10 of the illiterate children had had 40 months of schooling.

SCHOOL ATTENDANCE AND ILLITERACY OF CHILDREN UNDER 16 BY NATIVITY AND RACE.

Nativity and race.	Total children under 16 years.	Total at school less than 40 months.	Children who attended school—				Children unable to read and write.
			Less than 10 months	10 to 19 months.	20 to 29 months.	30 to 39 months.	
Native-born of native parents:							
White	709	[a] 119	8	20	24	67	[c] 26
Colored	61	[b] 26	9	4	4	9	[d] 14
Native-born of foreign parents:							
English	22						
French	5	2				2	
German	133	9			5	4	2
Irish	60	8			1	7	
Italian	2	1			1		1
Polish	1						
Other Slavs							
Other races	1						
Total	224	20			7	13	3
Foreign-born:							
English	69	4			2	2	1
French	50	1				1	
German	241	12		1	3	8	2
Irish	88	7	1	2	4		2
Italian	55	[a] 17	2	2	3	10	[e] 7
Polish	203	29		5	4	20	[e] 2
Other Slavs	135	14		2	3	9	[d] 3
Other races	58	23	1	5	7	10	[e] 4
Total	899	107	4	17	26	60	21
Grand total	1,893	[f] 272	21	41	61	149	[g] 64

[a] Including 3 who never attended school.
[b] Including 4 who never attended school.
[c] Including 3 who attended school more than 40 months.
[d] Including 2 who attended school more than 40 months.
[e] Including 1 who attended school more than 40 months.
[f] Including 10 who never attended school.
[g] Including 10 who attended school more than 40 months.

The next table shows a corresponding distribution of these children, by ages:

SCHOOL ATTENDANCE AND ILLITERACY OF CHILDREN UNDER 16, BY AGE.

Age.	Total at school less than 40 months.	Children who attended school—				Children unable to read and write.
		Less than 10 months.	10 to 19 months.	20 to 29 months.	30 to 39 months.	
9 years	3	1	....	2	....	3
10 years	11	....	2	4	5	2
11 years	[a] 8	[a] 2	2	....	4	5
12 years	20	3	4	5	8	[b] 8
13 years	32	2	6	5	19	6
14 years	[c] 114	[c] 8	13	25	68	[d] 23
15 years	[c] 84	[c] 5	14	20	45	[e] 17
Total	[f] 272	[f] 21	41	61	149	[g] 64

[a] Including 2 who never attended school.
[b] Including 1 who attended school more than 40 months.
[c] Including 4 who never attended school.
[d] Including 4 who attended school more than 40 months.
[e] Including 5 who attended school more than 40 months.
[f] Including 10 who never attended school.
[g] Including 10 who attended school more than 40 months.

The glass investigation covered more than one hundred communities, with the result that in most of these communities the number of child glass workers was too small to permit the accepting of such children as representative products of the local schools. This was particularly true of the larger towns and cities, in which, on the whole better educational conditions existed than in the smaller communities. As representative of the unsatisfactory conditions existing in many of the smaller communities a few examples may be given.

A typical glass town in New Jersey is first cited. Here, of the total number enrolling in the school, only 4 per cent on the average remain until the last year.([a]) The reason for this is partly explained by the demand for boys 13 to 15 years of age in the glass factories, but that is not the whole cause. A large part is to be found in the schools themselves.

It is the policy of the board of education to employ as teachers only such applicants as live in the town. This plan has been in force a long time. A girl goes through the public schools, is graduated from the high school, and returns as a teacher to prepare other girls who follow her. At the time of the investigation (May, 1908) but 3 of the entire force of 56 teachers were college bred. The fact that outside applicants are ruled out narrows the available material to a very few, one of whom, whether well prepared or not, is sure to get the appointment because she is better prepared than some one else.

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[a] According to Bulletin No. 4, 1907, of the Bureau of Education, of the children entering school in 23 cities 8 per cent remain to the end of the course.

The board of education consists of twelve members. The factory manager of the largest glass factory in the city has been chairman of the board for the past six years. One member is a foreman in the same factory and of the remaining members five are skilled glass workers and two are employed in other industries which also use child labor.

In his report for 1906 the city superintendent says: "On account of the great demand for boys in our glass factories many parents consider the dollar of more importance than the boy's education; and, so, many boys leave school as soon as they are 14 years of age, and sometimes, I fear, before they have attained the age limit." In discussing the matter with the bureau agent, however, he expressed himself as being satisfied with the number (4 per cent) who remain to the end of the school course. Asked if he adopted any plan for holding boys longer in school who might be drawn to the glass factory, he replied in the negative, saying that the problem had solved itself there. In regard to the boys who are incorrigible under ordinary discipline, or very far behind in their work, he stated that he himself had asked the superintendent of a glass factory (who is also chairman of the school board) if it would not be possible to place such delinquents in the glass factory. He said that he felt this would be a more humane disposition of the boys than to send them to the state reform school.

Information in regard to the school grade last attended is available for 70 boys and 3 girls who were at work and all of whom had attended local schools before going to work. Of the 70 boys 59 had attended the public school.

A comparison of the figures for the grade last attended and total months of school attendance would indicate that a large number of boys were "repeaters"—i. e., pupils required to repeat the work of a grade more than one year. Thus while only 15 of the 59 public school boys had attained the fifth grade, which in the city or town schools would usually mean not more than 45 months of school, 53 of the number had had 54 months or more of school. This apparently large number of repeaters will help to explain why so many boys were dissatisfied with school. In answer to the question "Why did you leave school?" 26 of the 59 in the public schools reported dissatisfaction with school in some form as the reason. "Didn't make any progress," or "tired of school" were the most frequent reasons given.

Seven boys who could neither read nor write, and one who could read but not write, were found in the factories of this town. Four of them had attended the town schools last (two public and two parochial), one had never attended any school, and three had attended schools in other communities. The fathers of these 8 illiterate boys were dead in two cases and in two other cases the mothers were dead. All the living parents were illiterate.

With the exception of one family of five, which had an annual per capita income of only $40, all of the families having illiterate children at work in the glass factories had per capita incomes of over $100, the average annual per capita for the eight families being $112.67. It does not appear, therefore, that these families were in any unusual economic distress which might justify the insufficient schooling of the children.

A community in western Pennsylvania may be cited as a second example. The families reported upon were largely Polish and Slav. It was found to be almost uniformly the case that both parents and children took it as a matter of course that the children should begin to contribute to the family income as soon as they had reached the age of 13 or 14. Fifty-two per cent of the 137 children attending the city schools last before going to work had left school before the fourteenth birthday. Forty-six per cent of those attending public school and 54 per cent of those attending parochial school left before the fourteenth birthday. The following table shows these facts in detail:

AGE AT LEAVING SCHOOL OF CHILDREN UNDER 16 WHO ATTENDED PUBLIC AND PAROCHIAL SCHOOLS IN A WESTERN PENNSYLVANIA COMMUNITY.

PUBLIC SCHOOL.

Present age.	Age at leaving school.												Total.
	Males.						Females.						
	11 years.	12 years.	13 years.	14 years.	15 years.	Total.	11 years.	12 years.	13 years.	14 years.	15 years.	Total.	
13 years	......	......	......	......	......	......	......	......	......	......	......	......	......
14 years	......	......	5	8	......	13	......	......	1	......	......	1	14
15 years	1	......	7	9	4	21	......	1	3	......	......	4	25
Total	1	......	12	17	4	34	......	1	4	......	......	5	39

PAROCHIAL SCHOOL.

Present age.	Males 11 years.	Males 12 years.	Males 13 years.	Males 14 years.	Males 15 years.	Males Total.	Females 11 years.	Females 12 years.	Females 13 years.	Females 14 years.	Females 15 years.	Females Total.	Total.
13 years	......	......	2	......	......	2	......	......	......	......	......	......	2
14 years	......	1	22	21	......	44	......	1	8	4	......	13	57
15 years	......	1	9	17	1	28	......	......	9	2	......	11	39
Total	......	2	33	38	1	74	......	1	17	6	......	24	98

Ordinarily, if a child has attended the parochial school regularly, he will have gone through all the "readers" or grades by the time he is legally permitted to work. The grade reached in Polish schools falls below the average for corresponding number of months' attendance. This is due in a general way to the fact that the children are at a disadvantage on account of the necessity of mastering two languages; the children are taught for the first four years in Polish exclusively, then they begin the primary work in English, taking it up laboriously in an unfamiliar tongue and making no progress in school beyond learning the English language. One child scheduled, a boy of 14, born in the United States, had attended parochial school exclusively, but though able to read and write Polish, could not read or write English. Another, a girl of 15, had attained the third grade in the Polish school, was able to read and write Polish, but was entirely deficient in English. Some of the children of this town had repeated as many as five times, and almost all had repeated once or twice.

There is no high school or manual training school in this community, and the night school facilities are either so far removed or so inadequate that the class of children investigated can not take advantage of them. Furthermore, as nearly all the boys work day and night on alternate weeks, their continuation school work, even if any were provided, would be seriously interrupted unless the school was adjusted to suit the working time of the boys.

In a near-by Pennsylvania town, having much the same character of population as the one described, the charge is made by foreign parents that their children are not wanted in the schools. It is said that the most of the teachers either prefer not to have the foreign children or are so indifferent to them that it amounts to the same thing. Many foreign parents were quite emphatic in declaring that the teachers urge the foreign children to leave school as soon as they reach the age of 14.

These few examples are given merely as types of the school within reach of a large number of the children of the smaller glass communities. It is true that many of them do not make the best of such as is offered, as has been pointed out in other connections, but it is also true that many of the schools are far from being what they should be to develop the child who must earn his living by manual labor.

CHAPTER XXII.

HOUSING AND LIVING CONDITIONS.

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GENERAL SUMMARY.

As has been pointed out earlier, the families of the woman and child glassworkers do not represent any particular element of American life. In less than a third of the families investigated was the father employed in the glass industry, and it was not usual to find so employed any other member of the family than the child or woman for whom the schedule was obtained. There is, in other words, practically no such institution as the "glass family" or the "glass town" in the sense in which there are cotton-mill families and towns in certain sections of the South and in New England. Racially, financially, and industrially the families concerned are extremely heterogeneous.

These facts in themselves render a general study of housing and living conditions extremely difficult, and the difficulty is intensified by the added fact of their wide geographical distribution. The 179 factories covered by this report were located in more than 100 distinct localities, of varying size and surroundings, small villages, towns, and cities, semirural communities, and industrial centers. As a result of such circumstances, living conditions as they are related to such matters as housing, crowding, and cost of food are widely diverse. Differences are much more marked than uniformities. In presenting the information upon these subjects, therefore, it is desirable to supplement the general information of the main tables by a somewhat detailed study of conditions existing among the scheduled families of particular communities. As the number of communities concerned is too great to permit of a detailed presentation of each, a selection has been made of five representative communities.

The present section upon housing and living conditions, therefore, will offer, first, a general survey of the housing conditions found existing among the total of 2,137 families, location being disregarded, but the size of the community being emphasized; and, second, a more intimate study of actual living conditions, as well as housing, in each of the five selected communities.

The following table distributes the 2,137 familes for whom schedules were obtained by the size of the communities in which located, and shows for each group the number and percentage of families owning their homes, the number and percentage renting their homes, the average yearly rent paid by those renting, the average rent per room per month, the percentage of total income paid for rent, the average number of persons per room, and the average number of persons per sleeping room. The fourfold division of communities into those having populations of, respectively, under 8,000, 8,000 to 24,999, 25,000 to 49,999, and 50,000 and over offers a fair measure of differences in external conditions of living, expense of food, opportunity of recreation, etc.

FAMILIES OWNING AND RENTING HOMES, RENT PAID, AND PERSONS PER ROOM AND PER SLEEPING ROOM, BY SIZE OF COMMUNITY IN WHICH LOCATED.

	Cities and towns with a population of—				
	Under 8,000.	8,000 to 24,999.	25,000 to 49,999.	50,000 and over.	Total.
Total families	838	493	207	599	2,137
Families owning homes	298	224	61	141	724
Per cent of families owning homes	35.6	45.4	29.3	23.5	33.9
Families renting homes	540	269	146	458	1,413
Per cent of families renting homes	64.4	54.6	70.7	76.5	66.1
Average yearly rent per family	$108.00	$107.00	$115.00	$120.00	$112.00
Average rent per room per month	$1.98	$1.67	$2.42	$2.50	$2.08
Per cent of total income paid for rent	12.1	11.4	12.8	14.0	12.6
Average number of persons per room	1.4	1.1	1.4	1.6	1.4
Average number of persons per sleeping room	2.6	2.2	2.5	2.7	2.6

The data of this table show that the tendency to ownership is much greater in the communities of smaller size. Of the families living in towns of under 8,000 and in towns of 8,000 to 25,000, 35.6 per cent and 45.4 per cent, respectively, owned their homes; whereas only 29.3 per cent of those living in cities of 25,000 to 50,000 and 23.5 per cent of those living in cities of over 50,000 were home owners. It must be remembered, however, that not all of these people reporting "homes owned" possessed homes in full ownership. It is quite customary among many families, especially those of the foreign birth, to purchase homes on the installment plan. Sufficient money to meet the first payment having been accumulated, negotiations are begun with a building and loan association or a real estate company for the purchase of the property. Frequently title to the property is never acquired, hard times, slack work, or sickness making it impossible for the later payments to be met. In such case the money previously paid is lost.

Rents in the larger cities, it will be observed, are higher not only in the average rent per family but also in the actual value received for the money paid. In the average rent per family there is a difference of $13 per year between towns of 8,000 to 25,000 and cities of over 50,000. In the average monthly rent per room the difference is even greater, $1.67 in towns of 8,000 to 25,000 and $2.50 in cities of 50,000 and over. On a five-roomed house, therefore, the renter in the larger city would average almost $50 per year more than the renter in the smaller town. It is to be observed also that family income does not increase in the larger communities in proportion to the rent. In towns of 8,000 to 25,000, 11.4 per cent of the total income is paid for rent, while in cities of 50,000 and over 14 per cent is devoted to that purpose.

The renter in the small town is usually favored by better as well as a cheaper home. Quite commonly a plot of ground surrounds the house, in which a small vegetable garden can be maintained and the cost of the rent thereby reduced still further.

The great majority of the families scheduled, 68.4 per cent, lived in separate houses, and of the remaining 31.6 per cent only a very few were living in "tenements," as that term is commonly understood. Usually when a separate house was not possessed the family concerned was living in an apartment of an ordinary residence building. Partly as a result of this absence of tenement life overcrowding was not a general evil even among the poorest of these families. Instances of excessive overcrowding were, however, by no means rare, as is indicated in the following table:

FAMILIES WITH EACH CLASSIFIED NUMBER OF PERSONS PER ROOM AND PER SLEEPING ROOM.

Classified average number of persons.	Families with classified number of persons—	
	Per room.	Per sleeping room.
Less than 1 person	356	10
1 person	322	74
1 and less than 2	917	380
2 and less than 3	400	853
3 and less than 4	122	437
4 and less than 5	13	229
5 and less than 6	4	90
6 and less than 7		32
7 and less than 8	1	18
8 and less than 9	2	9
9 and less than 10		3
10 and less than 11		1
11 and less than 12		1
Total	2,137	2,137

The relation of race to housing conditions is a subject of very considerable interest, although care must be used in interpreting the data obtained to avoid basing conclusions on insufficient evidence. Thus with the present group of 2,137 families the number of families of a race is in certain instances too small to offer specific evidence of racial tendencies. Also it is important to note, in comparing races upon the mentioned subject, whether the races compared are in communities of similar size, for, as has been pointed out, the fact of community size is in itself an important determinant of housing conditions. Therefore in the following tables the data relative to race have been classified, as previously, into communities of four important sizes.

The following tables make possible a comparison between the families of different nativity and race in the matter of ownership of homes. In considering the data of this table it is to be remembered that the reference of nativity and race is to the father of the family, not to the child or woman for whom the schedule was obtained. Thus an American white family means a family in which the father was born of white parents themselves born in the United States.

The first part of the table shows the desired facts regarding ownership for the 2,137 scheduled families as a single group. The second part of the table is added to show in what degree, if any, the indications of the combined group of families are also true for communities of varying size. Because of paucity of numbers, families with native-born fathers of foreign parentage have not been subdivided into races.

NUMBER AND PER CENT OWNING HOMES OF ALL FAMILIES AND OF FAMILIES IN COMMUNITIES OF EACH SPECIFIED SIZE, BY NATIVITY AND RACE.

Nativity and race.	Total number of families.	Families owning homes.	
		Number.	Per cent.
Native-born of native parents:			
White	787	202	25.7
Colored	83	13	15.7
Native-born of foreign parents	270	75	27.8
Foreign-born:			
English	77	27	35.1
French	59	32	54.2
German	296	156	52.7
Irish	117	33	28.2
Italian, South	50	19	38.0
Polish	208	74	35.6
Other Slavs	135	75	55.6
Other races	55	18	32.7
Total	997	434	43.5
Grand total	2,137	724	33.9

Nativity and race.	Cities and towns with a population of—											
	Under 8,000.			8,000 to 24,999.			25,000 to 49,999.			50,000 and over.		
	Total number of families.	Families owning homes.		Total number of families.	Families owning homes.		Total number of families.	Families owning homes.		Total number of families.	Families owning homes.	
		Number.	Per cent.		Number.	Per cent.		Number.	Per cent.		Number.	Per cent.
Native-born of native parents:												
White	329	92	28.0	218	70	32.1	108	27	25.0	132	13	9.8
Colored	9	3	33.3	5	1	20.0	37	6	16.2	32	3	9.4
Native-born of foreign parents	85	27	31.8	69	27	39.1	21	6	28.6	95	15	15.8
Foreign-born:												
English	36	16	44.4	22	6	27.3	3	2	66.7	16	3	18.8
French	44	27	61.4	11	4	36.4	......	......	......	4	1	25.0
German	86	37	43.0	74	53	71.6	22	14	63.6	114	52	45.6
Irish	21	4	19.0	30	16	53.3	8	2	25.0	58	11	19.0
Italian, South	29	17	58.6	7	2	28.6	......	......	......	14	......	......
Polish	88	26	29.5	13	9	69.2	......	......	......	107	39	36.4
Other Slavs	84	38	45.2	39	35	89.7	......	......	......	12	2	16.7
Other races	27	11	40.7	4	1	25.0	8	4	50.0	15	2	13.3
Total	415	176	42.4	201	126	62.7	41	22	53.7	340	110	32.4
Grand total	838	298	35.6	493	224	45.4	207	61	29.3	599	141	23.5

Examination of this table will show that the numbers of families concerned are sufficient to indicate definite racial tendencies with the following races, at least: American white, German, Irish, Poles, and other Slavs. Of these five races the American white shows the least tendency toward home ownership, 25.7 per cent; the foreign Slavs other than Poles the greatest, 55.6 per cent. The American colored is shown to be a very infrequent home owner, and the French to be a very frequent one. The significance of the high percentage of French owners, however, is rendered questionable, not only because of the comparatively few French families scheduled, but because those scheduled were so largely localized in one community.

In most instances each race is seen to observe the marked tendency shown to be true for the total—that the ownership of homes is much less in the larger cities than in the smaller communities.

Considering next the comparative rents paid by the several races and the values received for the money paid, the following table is offered. This table shows, according to the same race and community division as the preceding, the number and per cent of families renting homes, the average annual rent per family, the per cent of total earnings which the average family pays for rent, and the average monthly rent per room.

NUMBER AND PER CENT RENTING HOMES AND AVERAGE RENT PAID, FOR ALL FAMILIES AND FOR FAMILIES IN COMMUNITIES OF EACH SPECIFIED SIZE, BY NATIVITY AND RACE.

Nativity and race.	Total number of families.	Families renting homes.		Average rent per family per year.	Per cent of income paid for rent.	Average rent per room per month.
		Number.	Per cent.			
Native born of native parents:						
White	787	585	74.3	$112	12.3	$1.93
Colored	83	70	84.3	86	13.4	2.17
Native-born of foreign parents	270	195	72.2	127	13.5	2.14
Foreign-born:						
English	77	50	64.9	135	13.3	2.25
French	59	27	45.8	125	10.3	2.15
German	296	140	47.3	126	12.6	2.27
Irish	117	84	71.8	116	13.5	2.17
Italian, South	50	31	62.0	109	15.6	2.30
Polish	208	134	64.4	88	11.5	2.22
Other Slavs	135	60	44.4	92	12.3	2.39
Other races	55	37	67.3	116	12.1	2.13
Total	997	563	56.5	111	12.5	2.24
Grand total	2,137	1,413	66.1	112	12.6	2.08

NUMBER AND PER CENT RENTING HOMES AND AVERAGE RENT PAID, FOR ALL FAMILIES AND FOR FAMILIES IN COMMUNITIES OF EACH SPECIFIED SIZE, BY NATIVITY AND RACE—Concluded.

Nativity and race.	Cities and towns having a population of—											
	Under 8,000						8,000 to 24,999.					
	Total number of families.	Families renting.		Average rent per family per year.	Per cent of income paid for rent.	Average rent per room per month.	Total number of families.	Families renting.		Average rent per family per year.	Per cent of income paid for rent.	Average rent per room per month.
		Number.	Per cent.					Number.	Per cent.			
Native born of native parents:												
White	329	237	72.0	$107	11.8	$1.84	218	148	67.9	$107	11.7	$1.65
Colored	9	6	66.7	67	9.6	1.63	5	4	80.0	68	9.8	1.42
Native-born of foreign parents	85	58	68.2	131	13.2	2.15	69	42	60.9	120	11.8	1.86
Foreign-born:												
English	36	20	55.6	147	13.8	2.44	22	16	72.7	102	10.3	1.66
French	44	17	38.6	128	11.4	2.27	11	7	63.6	118	9.8	1.73
German	86	49	57.0	128	12.5	2.13	74	21	28.4	110	10.0	1.67
Irish	21	17	81.0	112	12.1	2.10	30	14	46.7	116	11.8	1.83
Italian, South	29	12	41.4	103	15.6	2.06	7	5	71.4	65	9.4	1.23
Polish	88	62	70.5	75	11.5	1.69	13	4	30.8	75	9.5	1.39
Other Slavs	84	46	54.8	86	11.2	2.30	39	4	10.3	90	19.2	1.54
Other races	27	16	59.3	103	11.0	2.05	5	4	80.0	122	14.2	1.73
Total	415	239	57.6	104	12.1	2.08	201	75	37.3	105	10.7	1.64
Grand total	838	540	64.4	108	12.1	1.98	493	269	54.6	107	11.4	1.67

Nativity and race.	25,000 to 49,999.						50,000 and over.					
	Total number of families.	Families renting.		Average rent per family per year.	Per cent of income paid for rent.	Average rent per room per month.	Total number of families.	Families renting.		Average rent per family per year.	Per cent of income paid for rent.	Average rent per room per month.
		Number.	Per cent.					Number.	Per cent.			
Native born of native parents:												
White	108	81	75.0	$117	12.6	$2.41	132	119	90.2	$126	14.2	$2.33
Colored	37	31	83.8	92	14.4	2.32	32	29	90.6	87	14.0	2.29
Native-born of foreign parents	21	15	71.4	135	13.1	2.71	95	80	84.2	126	15.0	2.27
Foreign-born:												
English	3	1	33.3	156	11.4	2.60	16	13	81.3	155	17.1	2.73
French	......	......	......	......	......	......	4	3	75.0	128	8.0	2.74
German	22	8	36.4	136	15.7	2.52	114	62	54.4	127	13.6	2.75
Irish	8	6	75.0	110	10.6	2.39	58	47	81.0	117	15.1	2.32
Italian, South	......	......	......	......	......	......	14	14	100.0	130	18.3	3.15
Polish	......	......	......	......	......	......	107	68	63.6	100	11.6	3.02
Other Slavs	......	......	......	......	......	......	12	10	83.3	120	15.6	3.45
Other races	8	4	50.0	129	8.7	1.95	15	13	86.7	128	16.5	2.48
Total	41	19	46.3	128	11.5	2.35	340	230	67.6	119	13.7	2.72
Grand total	207	146	70.5	115	12.8	2.42	599	458	76.5	120	14.0	2.50

A study of this table throws some interesting light on the value received for rent paid. The Negroes pay the lowest average yearly rent per family, $86, but, on the other hand, they pay a higher average rent per room than many who are paying a much higher total rent. The American whites, for example, average $112 yearly rent, while the Negroes average $86; but the American whites pay $1.93 per room per month, while the Negroes pay $2.17 per room per month. The Polish renters are in about the same situation; the average yearly rent per family is $88, but the monthly rent per room is $2.22. The other Slav races average only $92 per year, but they pay the highest monthly rent per room of any race. The English pay the highest average annual rent per family, $135, but their monthly rent per room is only $2.25, while the South Italians, whose annual rent averages only $109, pay $2.30 monthly rent per room.

In proportion to their earnings, the South Italians pay the highest rent, 15.6 per cent of their earnings go for rent. The French pay the lowest per cent, 10.3. The general average is 12.6 per cent of the total earnings paid for rent, the American whites being slightly below the average.

The comparative situation of the several races as regards crowding is shown in the next table. This table presents, by race and size of community as before, the average number of persons per room and the average number per sleeping room.

AVERAGE PERSONS PER ROOM AND PER SLEEPING ROOM, FOR ALL FAMILIES AND FOR FAMILIES IN COMMUNITIES OF EACH SPECIFIED SIZE, BY NATIVITY AND RACE.

Nativity and race.	Total number of families.	Average number of persons per room.	Average number of persons per sleeping room.
Native born of native parents:			
White	787	1.2	2.3
Colored	83	1.6	2.5
Native-born of foreign parents	270	1.3	2.4
Foreign born:			
English	77	1.2	2.2
French	59	1.2	2.3
German	296	1.4	2.5
Irish	117	1.4	2.5
Italian, South	50	1.6	2.7
Polish	208	2.0	3.4
Other Slavs	135	1.9	3.5
Other races	55	1.4	2.7
Total	997	1.5	2.8
Grand total	2,137	1.4	2.6

AVERAGE PERSONS PER ROOM AND PER SLEEPING ROOM, FOR ALL FAMILIES AND FOR FAMILIES IN COMMUNITIES OF EACH SPECIFIED SIZE, BY NATIVITY AND RACE—Concluded.

Nativity and race.	Cities and towns having a population of—											
	Under 8,000.			8,000 to 24,999.			25,000 to 49,999.			50,000 and over.		
	Total number of families	Average number of persons per room.	Average number of persons per sleeping room.	Total number of families.	Average number of persons per room.	Average number of persons per sleeping room.	Total number of families.	Average number of persons per room.	Average number of persons per sleeping room.	Total number of families.	Average number of persons per room.	Average number of persons per sleeping room.
Native born of native parents:												
White	329	1.3	2.4	218	1.0	2.1	108	1.5	2.6	132	1.3	2.5
Colored	9	1.6	2.5	5	1.6	2.7	37	1.4	2.4	32	1.8	2.7
Native-born of foreign parents	85	1.2	2.5	69	1.2	2.2	21	1.4	2.5	95	1.4	2.6
Foreign-born:												
English	36	1.2	2.4	22	1.2	2.1	3	1.0	2.0	16	1.3	2.3
French	44	1.2	2.3	11	1.1	2.1	......	......	......	4	1.4	2.4
German	86	1.4	2.6	74	1.2	2.3	22	1.6	2.7	114	1.5	2.6
Irish	21	1.6	2.9	30	1.2	2.3	8	1.3	2.4	58	1.4	2.6
Italian, South	29	1.6	2.6	7	1.1	2.3	......	......	......	14	2.0	3.1
Polish	88	1.9	3.4	13	1.3	2.8	......	......	......	107	2.2	3.5
Other Slavs	84	2.1	3.5	39	1.5	3.3	......	......	......	12	2.4	3.6
Other races	27	1.5	2.9	5	1.1	2.9	8	1.3	2.2	15	1.5	2.6
Total	415	1.5	2.9	201	1.2	2.4	41	1.4	2.5	340	1.7	2.9
Grand total	838	1.4	2.6	493	1.1	2.2	207	1.4	2.5	599	1.6	2.7

It appears from this table that the marked overcrowding is among the Poles and other Slavs. Both in number of persons per room and in number per sleeping room the American whites are well below the average. The Poles show 2 per room and 3.4 per sleeping room as against corresponding percentages of 1.2 and 2.3 for the American whites, and in the case of the other Slavs the overcrowding is almost precisely the same as among the Poles. It is noteworthy that the Slavs lead both in home ownership and in overcrowding, a situation developed no doubt by the Slavs' custom of buying a home on installment and then renting out rooms in order to meet the payments. The family itself in such a case sometimes live in the basement or cellar, all the upper rooms being rented out.

HOUSING CONDITIONS IN SELECTED COMMUNITIES.

PITTSBURG.

The families of woman and child glass workers in Pittsburg were chiefly foreign born, and with the exception of a large German element belonged almost entirely to the recent immigrant races. The following table shows the exact racial distribution of the 233 families scheduled.

Native-born of native parents, white	24
Native-born of foreign parents:	
English	3
German	21
Irish	7
Total	31
Foreign-born:	
English	6
French	1
German	56
Irish	17
Italian, South	5
Polish	75
Other Slavs	7
Other races	11
Total	178
Grand total	233

The section where most of the families live is very hilly. A narrow level place, containing only one important street, skirts the river. Back of it rises a steep, in places almost precepitous, hill. The hill is not terraced, the top being reached by an incline railway or by very long flights of stairs. With few exceptions, the houses of the families scheduled were built on the steep hillsides described. Those families scheduled, proportionately few in number, who were not dwellers here, lived along the lower water front in sections of the city not differing greatly, except in extreme hilliness.

Few of the houses visited faced on actual streets. Some were rear dwellings, tenements in the rear of more pretentious houses; others were simply on the hillside paths. Two of the "streets" upon which many of the families concerned lived may be described as representative. One runs from a main avenue to the bottom of the hill. The roadway was not paved, and in rainy weather it was so muddy that even the delivery wagons did not venture there, and during the freezing weather it was so slippery that horses could not climb. The sidewalk was of plank, a single plank in width. On the steepest part there was a series of stairs, but there were no guard rails and about one-half the steps were missing. An open gutter was the receptacle of all kinds of kitchen refuse and garbage. When the rains had not been sufficiently heavy to wash away the refuse, it stood in the gutter and street until it had reached an advanced stage of decomposition.

There were no yards to the houses located here, and the kitchens opened directly on the street. On the upper side of the street the houses were backed up against the rocky hillside, leaving no room for yards, while the lower side of the hill slopes away so abruptly that the houses had long props under them, leaving no possibility for a yard. An incline railway ran just above the lower side of the street, and the cars were constantly scattering dust and dirt over the houses below. The street had no sewerage connection, and the drainage was very bad. The houses were very close together, many having party walls, and all were in a wretched state of repair. The dwellers here represent no one nationality. The Irish, German, Italian, and Polish are the most numerous, the Polish predominating. Most of the Polish own their homes or are purchasing them.

The second of the two mentioned streets is a natural ledge two-thirds of the way up the hillside, bearing a single row of shanties. The street was only a path in dimensions, so narrow that even the coal had to be carried up in baskets. In some places the path in front of the houses was wide enough to stretch a clothesline and hang out a washing; in others it was so narrow and hilly as to render walking difficult. The houses scheduled here were all rented and all in very bad state of repair.

Of the 233 families scheduled, 52 owned their homes, 17 were purchasing, while 164 were living in rented houses. It is primarily the German and Polish who were the property owners. While only 2 of the 24 American white families owned their homes in full and none were purchasing, 31 of the 77 families of German parentage owned their homes in full and 5 were buying, and 16 of the 75 Polish families owned and 8 were purchasing homes. Indeed, it was the ownership of these homes that caused at least a part of the overcrowding and suffering. It seems to be the consuming desire of the Polish and south European Slav to own land, and to that end everything is sacrificed. As soon as sufficient money has been accumulated with which to make the first payment, purchase of a plot of ground and a house is begun. The earnings of every member of the family, adult as well as child, are turned over to the common fund to pay for the house. The mother is usually custodian of this fund, pay envelopes are given unopened to her, and spending money must be drawn from her by the individual. Having made the first payment the struggle begins to keep from losing the lot and the money already paid. Usually the family move into the basement and rent the remainder of the house. If there is a corner that can accommodate an extra bed it is sometimes rented to a lodger. Even then, when the mills close down and the chief wage-earners are out of work, the home must frequently be lost because the installments can not be met.

Many of the houses were double, 48 of those scheduled having more than two apartments. The steep hillsides, however, preclude the possibility of tenements for most of these families, the only tenements being on or below the main street at the foot of the hill. The table below shows the housing of the 233 families as regards ownership and as regards the number of apartments to the houses occupied.

FAMILIES WITH HOMES OWNED IN FULL, PARTLY PAID FOR, AND RENTED, BY NUMBER OF APARTMENTS TO HOUSE, PITTSBURG.

Houses of—	Number of families having—			Total families.	
	Homes owned in full.	Homes partly paid for.	Homes rented.	Number.	Per cent.
One apartment	36	10	42	88	37.8
Two apartments	13	5	79	97	41.6
Three apartments and over	3	2	43	48	20.6
Total	52	17	164	233	100.0

From this table it is seen that 79.4 per cent of the families lived in houses in which there were not more than two apartments.

Extreme cases of overcrowded houses were frequent. The details of this are shown in the following table:

FAMILIES WITH EACH CLASSIFIED NUMBER OF PERSONS PER ROOM AND PER SLEEPING ROOM, PITTSBURG.

Classified average number of persons.	Families with classified number of persons—	
	Per room.	Per sleeping room.
Less than 1	14	
1	24	2
1 and less than 2	86	25
2 and less than 3	62	87
3 and less than 4	39	55
4 and less than 5	7	35
5 and less than 6		13
6 and less than 7		6
7 and less than 8		5
8 and less than 9	1	3
9 and less than 10		2
Total	233	233
Average number of persons	1.8	2.9

These figures evidence extreme crowding in a very large number of families. Thus, 119 families out of 233, or 51.1 per cent, had as many as 3 persons per sleeping room, 16 had as many as 6 persons per sleeping room, and 2 as many as 9 persons. As, however, the exact number of rooms used by a particular family for sleeping purposes was sometimes difficult to determine, and as it was always possible to use all the rooms of the house for that purpose, the number of persons per room, as given in the first column of the table, is, in some respects, a better measure of crowding. Employing such a measure it would appear that no less than 47 families, 20.1 per cent, had as many as 3 persons per room, 8 families as many as 4 persons per room, and 1 exceptional family no less than 8.

The rents paid were high. The average yearly rent for the 164 families renting was $124. The rent per room was proportionately even higher, being on the average $3.08 per month. One scheduled family living in a small alley, paid $180 per year for three third-story tenement rooms. The house was old and in extremely bad repair. In another alley, Polish families were found paying from $96 to $132 per year for the use of two rooms; and back of a wholesale produce establishment, in what was little more than a partitioned shed, an Italian family was paying $264 per year for four rooms.

The sanitary conditions of the houses visited were occasionally good, but with the great majority were very bad. The light and ventilation of the houses on the hilltops was usually fairly good, as was also that of the better dwellings on the hillside. But in the case of the rear tenements and of those houses which were backed directly against the hillside, the ventilation and light was often very bad. Of the 204 houses reporting upon this point 51 were reported as good, 64 as fair, and 89 (43.6 per cent) as poor or bad.

The hillside situation of many of the houses facilitates natural drainage. Frequently, however, the hilliness acts as a disadvantage. Many of the householders dispose of their garbage and other waste matter by simply dumping it in the open around their houses, and the houses lower down the hill get the seepage of this and also of many foul closets. Four-fifths of the houses visited reported bad drainage.

The closets complicated the drainage problem. A large percentage of the houses under consideration, especially those upon the hillsides, did not have inside closets and were not connected with sewers. Of 224 reporting on the subject 107 reported vault closets with no sewer connection, while only 117 reported flush closets. Some of the vault closets were cleaned once a year; most were cleaned at no regular time and not as frequently as once a year. In one section all the closets were only about 2 feet from the house door, and the odors were consequently very bad.

A few of the houses visited obtained their drinking water from pumps. In the great majority of cases hydrant water was used, and this water was very dirty.

OLEAN-BRADFORD DISTRICT.

The Olean district comprises six towns located in southwestern New York and northwestern Pennsylvania, all within a radius of a comparatively few miles of each other. The district is fairly defined, with the nearest large city too far away to affect its social life. It is a manufacturing section, originally based upon, and still largely dominated by, oil and natural gas. In the country between the several towns there is comparatively little agricultural development. The recent immigrant races, the Slav and the Italian, have not entered in any considerable number, and while there is a large foreign-born population it is in great degree English speaking.

In this district 117 families were scheduled. The racial distribution of these was as follows:

Native-born of native parents, white	46
Native-born of foreign parents:	
English	1
German	4
Irish	6
Total	11
Foreign-born:	
English	1
French	8
German	13
Irish	8
Italian, South	12
Polish	9
Other Slav	1
Other races	8
Total	60
Grand total	117

Of the 117 families scheduled, 40 owned their homes in full, 12 were purchasing, making a total of 52 families, or 44.4 per cent, who were property owners either in full or in part. The following table shows the distribution of families in the matter of ownership classified by nativity and by race in the case of the foreign-born Italian and Slav:

FAMILIES WITH HOMES OWNED IN FULL, PARTLY PAID FOR, AND RENTED, BY NATIVITY, OLEAN-BRADFORD DISTRICT.

Conditions as to ownership of house.	Number of families.					Total.
	Native-born of native parents, white.	Native-born of foreign parents.	Foreign-born.			
			Italian.	Slavs.	Other races.	
Owned in full	10	4	4	4	18	40
Partly paid for			2	5	5	12
Rented	36	7	6	1	15	65
Total	46	11	12	10	38	117

There was little serious overcrowding among these families. Seven families of the 117 (6 per cent) had 2 or more persons per room, and 24, or 20.5 per cent, had 3 or more persons per sleeping room. Eight families had 4 or more persons per sleeping room, the racial distribution being: American white, 3; foreign-born Irish, 3; foreign-born Slavs, 2. No racial group averaged less than 5 rooms per family, the average number for all families being 6.4. The following table gives the details regarding the number of persons per room and per sleeping room:

FAMILIES WITH EACH CLASSIFIED NUMBER OF PERSONS PER ROOM AND PER SLEEPING ROOM, OLEAN-BRADFORD DISTRICT.

Classified average number of persons.	Families having classified number of persons—	
	Per room.	Per sleeping room.
Less than 1	39	1
1	22	3
1 and less than 2	49	33
2 and less than 3	6	56
3 and less than 4	1	16
4 and less than 5		6
5 and less than 6		2
Total	117	117

The average annual rent for the 65 families renting was $94, ranging from $69 for the South Italians to $114 for the foreign-born French. The lowest monthly rent per room was $1 paid by the native-born Irish, and the highest, by the foreign-born Irish, was $1.85.

As regards sanitation the conditions were those of the small town. Most of the houses were detached, with pleasant yards or gardens. Indoor plumbing was generally lacking among the houses visited, only 12 of the 117 having flushed closets, but there were no attendant evils such as come with the absence of plumbing in the congested parts of cities. Light and ventilation were almost uniformly good, only two being reported as really poor.

A NEW JERSEY GLASS TOWN.

Like other south Jersey cities, ——— is a "city" only in number of inhabitants. City conditions, as that term is generally understood, do not prevail. Its growth has been very slow. With a population of about 6,000 in 1870 it had not quite doubled itself in 1905. This population was largely American, there being only slightly over 700 foreign-born persons. Of these, the Germans, numbered about 200, while the English, Irish, and Italian were next in importance in order. Scattering European races, chiefly Slavs, numbered about 250. The exact distribution by nativity and race of the 112 families scheduled for this investigation is as follows:

Native-born of native parents, white	74
Native-born of foreign parents:	
French	1
German	6
Irish	5
Other races	1
Total	13

Foreign-born:	
English	4
French	3
German	6
Irish	8
Polish	2
Other Slav	1
Other races	1
Total	25
Grand total	112

The glass industry dates from the early history of the town. Shortly after it was established by cotton manufacturers the glass industry attracted by the abundant supply of sand, the transportation facilities, and the market offered by the nearness to Philadelphia located there. Several other industries have since been established, but the cotton and glass interests have always controlled the affairs of the municipality. This investigation found 2,162 persons employed in the glass factories of ——— in skilled and unskilled occupations. Of these 175 were children under 16 and 85 were women. In total, therefore, almost one-fifth of the total population was employed in the glass industry.

An unusually large percentage of the fathers of child glass workers were found working in the glass factories. Of the 93 families visited having children at work in the glass factories, 67 reported the father employed in the glass factory. Seven reported the father dead, 4 deserted, and 1 incapacitated, the remaining 14 being employed in various occupations. Of the 67 fathers employed in the glass factories, 31 were unskilled laborers, 16 were blowers, 6 shearers, 8 packers, 2 mold makers, 2 leer men, 1 grinder, and 1 apprentice blower. The casual-labor type of family that drifts around, drawn by no especial feature, and whose children frequently find their way into the glass factories because it is the easiest place to find work, was almost entirely lacking.

No special housing problem exists here. Conditions are fairly uniform. The town is spread out over a wide area and there is practically no crowding and no congestion. With the exception of the "company rows" the houses are single, or at most double, having yards on all sides. Of the 112 families scheduled, 44 (39.3 per cent) occupied houses of only the one apartment; 61 (54.4 per cent), houses of two apartments, and 7 (6.3 per cent) houses of three apartments.

Of the 74 American white families, 28 (37.8 per cent) owned their homes, as against 8 homes owned by the remaining 38 families of other races (21.1 per cent). The exact racial distribution of ownership in the latter 8 instances is as follows: Native-born Irish, 2 out of 5 families; foreign-born German, 3 out of 6; foreign-born Irish, 2 out of 8; foreign-born Polish, 1 out of 2. The large predominance of the

American white in the matter of ownership of homes is due to the fact that the American whites are the old families having settled there when the town was new and land values low. The immigrant is a late comer and has not as yet established himself so securely as a property holder.

When the glass industry was a pioneer industry the "company house," together with the "company store," were common adjuncts to the glass factory. In every other glass manufacturing center, except south Jersey, both of these institutions have now disappeared. In several of the glass towns of South Jersey, however, one or the other or both still persist. In ——— they are particularly prominent, and a considerable proportion of the families of glass workers live in houses rented from the glass company by whom they are employed. For the most part it is the families of the lower incomes which occupy these houses. This is evident from the following table which classifies the 112 scheduled families into those owning their homes, those renting noncompany houses, and those renting company houses, and gives the average per capita annual income of each class:

NUMBER AND PER CAPITA ANNUAL INCOME OF FAMILIES OWNING HOMES AND RENTING COMPANY AND NONCOMPANY HOUSES, NEW JERSEY GLASS TOWN.

	Families.	
	Number.	Per capita annual income.
Owning homes	36	$205
Renting noncompany houses	40	182
Renting company houses	36	141

It is thus seen that the per capita annual income of those renting company houses was 22.5 per cent lower than that of those renting noncompany houses—$141 as against $182.

The average annual rent of the 36 company houses scheduled was lower than that of the 40 noncompany houses—$85 as against $98. On the other hand, the company houses had a smaller number of rooms per house—5.5 as against 6.9—with the result that the average rent per room was greater in the case of the company house. Thus the average monthly rent per room for the company houses was $1.28 as against $1.18 for the noncompany houses, a difference of $1.20 per year.

In addition to their higher rent per room the company houses were, on the whole, less desirable in location, comfort, and appearance than were the noncompany houses. The former were mostly old, all in need of paint, and many in need of important repairs. Many were built flush with the sidewalk; a few had a narrow strip of sandy soil in front. All were built close together, only 5 of the 36 scheduled being unattached houses. The majority were in rows of three, four, five, or six and known as "company rows."

The noncompany houses evidenced much more comfortable living conditions. They were in more attractive parts of the town; many had yards, trees, and flower gardens, and nearly all were unattached or twin buildings, insuring better light and ventilation than a "row" could offer.

Dry vault closets were mostly in use; only eight flushed closets were reported, and none of them were in company houses. The small yards of the company property brought the closets very close to the houses, and although they were frequently cleaned by the company the odors became very offensive in warm weather. The larger yards of the noncompany houses placed the closets farther from the house, where they were accordingly less objectionable.

The city has a good water system supplied from a lake. Only a little over one-half of the houses visited, however, were connected with the mains. The source of water supply is shown in the accompanying table:

SOURCE OF WATER SUPPLY OF HOUSES OWNED AND RENTED BY FAMILIES VISITED IN NEW JERSEY GLASS TOWN.

Water supplied by—	Homes owned.	Homes rented.		Total.
		Noncompany.	Company.	
Well or pump	7	21	27	55
Hydrant	29	19	9	57
Total	36	40	36	112

Serious overcrowding was almost entirely absent among the families scheduled. The following table classifies these families according to the number of persons per room and per sleeping room in each family:

FAMILIES WITH EACH CLASSIFIED NUMBER OF PERSONS PER ROOM AND PER SLEEPING ROOM, NEW JERSEY GLASS TOWN.

Classified average number of persons.	Families with classified number of persons—	
	Per room.	Per sleeping room.
Less than 1	52	1
1	20	10
1 and less than 2	39	32
2 and less than 3	1	48
3 and less than 4		16
4 and less than 5		4
5 and less than 6		1
Total	112	112

It will be seen from this table that only one of these families had as many as 2 persons per room, and only 5 had as many as 4 persons per sleeping room.

Comparison regarding overcrowding among the families owning homes, renting noncompany houses, and renting company houses, respectively, is made in the following table:

AVERAGE PERSONS AND NUMBER OF ROOMS PER FAMILY AND AVERAGE PERSONS PER ROOM AND PER SLEEPING ROOM, IN OWNED AND RENTED HOUSES, NEW JERSEY GLASS TOWN.

	Homes owned.	Houses rented.		Total.
		Noncompany.	Company.	
Total number of families	36	40	36	112
Average number of persons per family	6.5	5.4	7.0	6.4
Average number of rooms per family	8.3	6.6	5.5	7.2
Average number of persons per room	.8	.8	1.3	.9
Average number of persons per sleeping room	1.8	1.9	2.5	2.0

It is of interest to note on this table that the average number of persons per room and per sleeping room is not very different as between those families owning their homes and those renting noncompany houses, and that both of these contrast very favorably with those families who were renting company houses.

A PENNSYLVANIA GLASS TOWN.

Located in the heart of the western Pennsylvania soft-coal region, not far from Pittsburg, is a characteristic glass town of about ten thousand inhabitants. The glass industry built the town, a large number of Belgian glass blowers being brought in to operate the plants. It is an industrial town of the barest type, there having been little or no attempt to make it more than simply a place for people to live while they work in mines or factories. The glass and mining interests predominate.

Over one-third of the inhabitants are foreigners. With the exception of the large French element from Belgium, these are mostly of the late immigrant races—Slavs predominating. The racial classification of the 109 scheduled families is as follows:

Native born of native parents, white	10
Native-born of foreign parents:	
English	1
German	6
Irish	1
French	1
Total	9

Foreign-born:	
English	9
French	30
German	14
Irish	2
Italian	10
Polish	4
Other Slav	14
Other races	7
Total	90
Grand total	109

In addition to the Slav families there is an increasing floating population made up of young girls who come direct from their native country to work in the factories. If a girl has a relative or friend in the old country whom she wishes to bring to America, but has not the means of defraying expenses, an advance of the necessary funds may be secured, which must be paid back from the girl's first earnings. On the other hand, many Slavs, male and female, arrive knowing nothing apparently excepting that there is a factory there.

There is an unusually large number of families either in actual poverty or with extremely low incomes. The fathers are mostly unskilled laborers, only a very small percentage getting as much as $3 per day.

All the hills on the south side of the Monongahela River are steep, and it is on one of these hills that the town is built. There was little attempt at street grading, the houses, perched up on the hillsides being reached by flights of ill-kept stairs which, in slippery weather, were well-nigh impassable. Poor water, insufficient street lighting, and inadequate drainage added to the discomfort. In many sections, open drains were in use; in others the natural gullies on the hillside were used as drains. Much garbage was thrown into these gullies and often accumulated until the odors became very offensive. In many cases the homes were built on the lower side of the street and the basement or first floor was below the street level. In a few instances boards had been set up in the door just outside to keep out the water and mud, which otherwise would have run in at the door. Many of the kitchen doors opened to the street and the small yards were made a common dumping ground. Plank sidewalks, usually in bad repair, were found in most of the sections occupied by the families of the glass factory employees. The town was lighted by gas, but the number of lights was totally insufficient.

Practically all of the houses had been built within the preceding thirty years, most of them being frame structures with concrete or stone basements. Built on the steep hillsides, as the houses were, large tenements were not possible. As a result the great majority of the families lived in separate houses. Of the 109 families scheduled

63 lived in separate houses; 37 in two apartment houses; and only 3 in homes of 3 or more apartments.

More than one-half of the families concerned owned their homes in full or were purchasing them. The details regarding this point is shown by nativity and by the more important races in the following table:

FAMILIES WITH HOMES OWNED IN FULL, PARTLY PAID FOR, AND RENTED, BY NATIVITY, PENNSYLVANIA GLASS TOWN.

Conditions as to ownership of house.	Number of families.						
	Native born of native parents, white.	Native born of foreign parents.	Foreign born.				Total.
			French.	Slav.	Other races.	Total.	
Owned in full		2	13	8	11	32	34
Partly paid for	1	1	8	3	9	20	22
Rented	9	6	9	7	22	38	53
Total	10	9	30	18	42	90	109

The predominance of French as property owners is explained by the fact that they were the original settlers. The importance of the Slav as an owner is another example of a racial custom already remarked upon.

The rents were upon approximately the same scale as that existing in Pittsburg. The average annual rent paid by those renting was $130; the average monthly rent per room $2.50.

Conditions as to overcrowding are shown in the following table:

FAMILIES WITH EACH CLASSIFIED NUMBER OF PERSONS PER ROOM AND PER SLEEPING ROOM, PENNSYLVANIA GLASS TOWN.

Classified average number of persons.	Families with classified number of persons—	
	Per room.	Per sleeping room.
Less than 1	9	
1	17	3
1 and less than 2	52	14
2 and less than 3	24	38
3 and less than 4	6	28
4 and less than 5		12
5 and less than 6	1	8
6 and less than 7		5
7 and less than 8		1
8 and less than 9		
Total	109	109

From this table it appears that 54 of the 109 families, almost precisely one-half, had as many as 3 persons per sleeping room, and 14 had as many as 5 persons per sleeping room. Moreover, there were 31 families with as many as 2 persons per room.

In most cases the facilities for light and ventilation were at least fairly good. When such was not the case, the absence of such facilities was due not so much to houses being crowded together as to the fact that they were built on the lower side of the street against a hillside, in such position that the hill cut off the light and hindered ventilation. In 10 cases, however, the families lived in basements where there was almost no possibility of either good light or good ventilation.

Those who lived high up on the hill had the advantage of better light, ventilation, and drainage, but there were some serious disadvantages. The women and girls who occupied such houses must climb the steep cross streets interspersed with numerous steps for a half mile or more when returning home from work. The absence of good sidewalks added to the difficulty of going up and down these streets when there was snow or sleet upon the ground.

The drainage was bad in almost all the houses visited. Of the 91 houses reporting on drainage 71 report drainage as being poor or bad. Many of the kitchen doors opened on the front of the house and the front yards were thus made a common dumping ground for all sorts of refuse. As a result, houses farther down the hill suffered from the seepage.

Less than one-third of the houses scheduled were supplied with flushed closets. In some cases the vault closets were far enough from the house to be neither dangerous nor objectionable; in other cases the proximity of the hillside necessitated the closets being placed very close to the house. One hundred and five houses scheduled reported on the subject of closets. Of these, 39 had flushed closets and 66 had dry vault privies. It was among these latter that the most objectionable conditions were found.

The city water supply is piped into a little over one-half of the houses in the district occupied by the most of the glass-factory employees. It is so muddy and malodorous at times that it is not fit for laundry purposes, much less for cooking and drinking. The people use the city water only when forced to do so; many have wells in their own yards from which they get water for cooking and drinking. Fifty-one of the 109 houses reporting had wells or pumps. These wells are usually about 25 feet deep.

The above description of housing conditions applies only to such familes as were occupying houses or apartments of their own. It does not include the numerous Slav boarding houses, in which a large number of the women glass workers lived and which were largely concentrated in one district. It was in these places that the worst conditions of overcrowding were found. These houses were conducted by Slavs, and each one accommodated from 5 to 10 boarders. Frequently the boarders buy their own food, the cooking being done by the woman of the house.

In most of these houses the living conditions were deplorable. The houses were almost all of one type—small frame structures, rudely constructed, with no regard for light and ventilation. The sewerage throughout the district was in a very poor condition, and it was not uncommon for sewer pipes to burst, flooding the cellars with their contents.

In many of these houses the men and women were herded promiscuously together, the two sexes not infrequently occupying the same sleeping apartments.

MORGANTOWN DISTRICT, WEST VIRGINIA.

This district includes five smaller cities and towns in the northeastern section of West Virginia (Morgantown, Fairmont, Grafton, Mannington, and Sabraton). The towns are all within two hours' journey of each other, and while differing in size are of substantial uniformity from the standpoint of industrial character, housing, and cost of living. Coal mining is a dominant industry, and none of the towns are "glass towns" in the sense that the glass industry is of controlling importance. This district is somewhat isolated, and for amusements, society, etc., must be almost entirely self-suffering.

The presence of the coal mining has attracted a large number of recent immigrants, especially the Slavs. The families represented in the glass industry, however, were very largely American, white. The following table classifies the 114 families scheduled by nativity and race:

Native born of native parents:	
White	65
Colored	2
Total	67
Native-born of foreign parents:	
English	1
German	9
Irish	6
Total	16
Foreign-born:	
English	5
French	3
German	10
Irish	2
Italian	4
Slav	4
Other races	3
Total	31
Grand total	114

A little less than one-third of the 114 families visited owned or partly owned their homes. The largest percentage of those owning were found in the American white families. There were not a sufficient number of alien families scheduled to suggest a tendency. For that reason they have been classified in the following table merely as native and foreign born.

FAMILIES WITH HOMES OWNED IN FULL, PARTLY PAID FOR, AND RENTED, BY NATIVITY, MORGANTOWN DISTRICT.

Conditions as to ownership of house.	Number of families.				
	Native-born of native parents.		Native-born of foreign parents.	Foreign-born.	Total.
	White.	Colored.			
Owned in full	16	1	1	4	22
Partly paid for	9		1	4	14
Rented	40	1	14	23	78
Total	65	2	16	31	114

Overcrowding was exceptional among the scheduled families of this district, but a few cases of extreme overcrowding were found. The most extreme was that of a Slav family, in which the 7 members of the family were sleeping in two beds in one room, while 10 boarders slept in another room. The remaining room of this house was a small kitchen. The details regarding the number of persons per room and per sleeping room are given in the following table:

FAMILIES WITH EACH CLASSIFIED NUMBER OF PERSONS PER ROOM AND PER SLEEPING ROOM, MORGANTOWN DISTRICT.

Classified average number of persons.	Families having classified number of persons.	
	Per room.	Per sleeping room.
Less than 1	20	2
1	22	2
1 and less than 2	49	21
2 and less than 3	18	60
3 and less than 4	3	11
4 and less than 5	1	9
5 and less than 6	1	4
6 and less than 7		3
7 and less than 8		1
8 and less than 9		1
Total	114	114

The average annual rent paid by the 78 families renting their homes was $120, 35 of the 78 families paying less than that amount. The average monthly rent per room was $2.11.

In matters of sanitation, generally, the conditions of the small town prevailed throughout the district. A few of the houses had very poor provision for light and ventilation, but the most of them, standing as they did on separate lots, were well provided for. Sixty-two per cent of the houses were supplied with hydrant water either in their houses or in the yards; 70 per cent had vault closets and no sewer connections. Sewerage is generally lacking throughout this district.

CHAPTER XXIII.

COMPANY STORES.

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COMPANY STORES.

Notwithstanding the limited area in which it exists, some discussion of the company store is necessary because of its important social and economic effects on the class of employees with whom this report has to deal. On account of the limited scope of this investigation, it must be kept in mind that the present discussion does not deal with the question of the company store as an industrial and economic institution, but only with its effects as concerns particularly the women and children employed in the industry and as concerns generally the families of which these women and children are members. It will be shown later that this limitation of the subject tends to make the company store appear in a more favorable light than would a discussion of its effects on the families in which there are no children who are employees of the factory. Nevertheless, before discussing the problem in this particular application, it is necessary to consider briefly the origin of the company store in the glass industry and the reasons for its continuance, in spite of the formidable opposition that has been brought against it by labor organizations and by legislators.

With few exceptions the manufacture of glass has tended to be a pioneer industry, seeking locations where the natural resources, such as fuel and sand, were abundant. As such locations were usually undeveloped and sparsely settled it was necessary for the manufacturer to import his labor and to provide for them the means of obtaining food and shelter. In the West, where labor was largely organized and where its opposition to the company store and house was clearly defined, the dwellings in these pioneer towns were for the most part built by real estate companies, and the stores run by private individuals. In the East, however, and particularly in New Jersey, at the time of the establishment of the factories, a large part of the skilled labor was still unorganized, and from custom the company store had come to be regarded as an almost necessary appendage of the glass factory, to which opposition would be futile. Where company stores were established in the West, the towns grew so rapidly as a rule that the maintenance of a company store, depending for its existence on the absence of competition for the trade of the employees, was almost impossible.

This situation is clearly shown by the following table taken from the United States Census of 1880:

ESTABLISHMENTS IN THE UNITED STATES HAVING AND NOT HAVING COMPANY STORES, AND NUMBER OF EMPLOYEES IN SUCH ESTABLISHMENTS BY BRANCH OF INDUSTRY, 1880.

[Tenth Census, Manufactures, 1880: Special report on Glass, p. 8.]

Branch of industry.	Stores.		No stores.		No statement.	
	Number of establishments.	Number of employees.	Number of establishments.	Number of employees.	Number of establishments.	Number of employees.
Plate glass	2	376	4	580	....	....
Window glass	12	1,028	36	2,493	10	369
Glass ware	1	900	76	11,565	14	175
Green glass	12	2,259	30	3,896	14	536
Total	27	4,563	146	18,534	38	1,080

The report states:

> The establishments concerning which there is no statement are generally idle works, or works that are building, which will account for the small number of employees, concerning which no statement has been obtained.
>
> It should not, however, be inferred from this table that at the works having stores the men are always obliged to deal at them. While this may be true in some instances—to what extent, however, I am not able to say—in other cases it is not true, as it is entirely optional with the employee whether he trades at the store or not. In a number of cases the store is only kept as an accomodation to the men, the works being so situated that this is a necessity. The returns also show that at most of the works having stores a considerable portion of the wages of the men are paid in cash.
>
> While all the above is true, and while the small number of establishments having stores is exceedingly gratifying, this question of "truck," is a burning one between employer and employed. In most States "store-pay" is illegal, and the existence of stores in many cases is a violation or evasion of the law.([a])

An examination of this table brings out several very interesting facts. First, excluding window and plate glass, with which the present report is not concerned, we find that the operation of company stores was practically confined to the green-glass branch (manufacturing beer and soda bottles, etc.). At that time this branch of the industry was located almost altogether in the East, there being in New Jersey, New York, and Pennsylvania alone 29 establishments out of the total 43 which were in operation during the census year. Second, it is also to be noted that it was the larger and more thoroughly established factories which were operating stores. In the green-glass branch the factories having company stores had an average of

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[a] Tenth Census, Manufactures, 1880: Special Report on Glass, p. 8.

188 employees, while those without stores had an average of 130 employees.

In the East, what are known as glass towns were for the most part established before 1850, and although they have increased their population considerably in recent years, they have retained largely the characteristics which they bore when first established. It is, therefore, only in the limited area of southern New Jersey that company stores conducted in connection with glass factories still existed at the time of the present investigation, but in this district nine of the fourteen establishments investigated were maintaining such stores.

The persistence of the company store in the face of the great opposition brought against it by labor through the Glass Bottle Blowers' Association and through the state legislature is due to the fact that the possession by the company of a store gives to it important economic and industrial advantages. These are: First, the profit that such stores, simply as business enterprises, bring in. This profit is reckoned by the managers of the stores themselves to be 10 per cent net, and where the annual sales amount to from $30,000 to $200,000 the income from this source is considerable. This profit makes it possible for a manufacturer who conducts a store to undersell a competitor, who pays the same price for raw material and labor, but does not conduct such a store. In the second place, the fact that a large part of the wages are paid, not in cash, but in "store books" or as deductions for goods already purchased by the employees, enables the manufacturer to operate with a much smaller active capital than if all wages were paid in cash. Third, the store gives the employer a significant power of control over his employees, particularly over those who are unskilled and therefore comparatively immobile.

The system of conducting company stores maintained by the glass manufacturers of south Jersey has greatly changed for the better, particularly during the past ten years. Articles in New Jersey papers of ten or fifteen years ago, and especially an investigation made by the New Jersey Bureau of Statistics in 1900, show that before 1900 the system of paying wages either in "scrip" (a species of private currency issued by the company) or in "store orders" was so prevalent that only a small proportion of even the skilled workmen received their wages in cash. Furthermore, the employees were openly and directly compelled by agreement and under threat of discharge to trade altogether at the company store, and in many instances it is alleged that the use of a blacklist among the manufacturers made the penalty even more severe. Several attempts were made to remove the evil by legislation (notably the cash bill of 1899), but these laws seem to have had little effect, and practically the same abuses continued until the skilled workmen took a decided stand against them in the south Jersey strike of the Glass Bottle Blowers' Association in 1902.

This strike practically settled the problem of the company stores in union factories in so far as the skilled workmen were concerned; but from the results of the present investigation, it made little change in the operation of the system as concerns the unskilled labor and the employees of nonunion factories.

Of the 14 glass factories visited during the present investigation, 9 had company stores. Although these stores were found to differ greatly in size, appearance, and the quality of goods, they are all of the type known as "general stores," carrying in stock groceries, meats, shoes, hats, dry goods, and novelties of various kinds. From some even it is possible to purchase coal, wood, hay, and corn, so that, taken in conjunction with the company house, the company store supplied practically everything that the employee requires. The amount of business transacted with employees by these stores varies greatly, the total amount of sales ranging from $30,000 in the case of the smaller establishments to over $200,000 for the larger establishments.

The systems of conducting the business as regards employees are also not uniform. By one of the companies a credit business is conducted much after the manner of a private business, wages being paid in cash and the bills contracted by the employees at the company store being rendered periodically. By one other company entries of articles purchased are made on separate sheets, which the employees are expected to file, as a check against the deductions made in payment of such accounts from wages at the end of the pay period. In this establishment, in order to check large accounts and safeguard the company against loss, a list is made up in the office and given to the store manager, showing the amount of weekly credit, i. e., advances on wages, to be allowed the employee. The amounts vary, according to the earning capacity of the individual and the employer's estimate of his reliability, from $3 to $10, but in one exceptional case it was marked "umlimited."

The method used by the other companies is to issue "punch books" to the employees for cash, as an offset to wages already earned, or in some cases, where the employee is considered to be reliable, in advance of wages earned. These "punch books," which range in value from $1 to $10, consist of a card on which are figures representing amounts of from one cent up, the sum of which just equals the face value of the books. These figures are punched out in combinations representing the amount of each purchase, and the items purchased are written on blank leaves attached to the card.

The books are consecutively numbered as a check on the conpany's part, bear the name of the person to whom they were originally issued, and on their first pages read as follows:

PAYABLE ON DEMAND IN MERCHANDISE.

To..
Not transferable.
.................................., 190
Registered by the ....Co.
Received payment..., 190

At the back of the book is a perforated card similarly numbered which is retained by the company when the book is issued, and on the back of the book is the following notice: "This book is to be used by you at the store the same as *cash*. When you buy an article, instead of having it charged, as formerly, *you pay for it* by punching out of the book the amount of purchase."

This system is of considerable value to the purchaser in that it gives him the means of checking up his accounts and of preventing errors in charges. Furthermore, it should tend to make the employees less likely to purchase beyond what they are able to afford, for they have before them in the unpunched amounts on the card a graphic illustration of the amount which remains to be spent. Nevertheless in view of what the books bear upon their face, namely, that they are "Payable on demand in merchandise" and "Not transferable," they resemble in form at least the "store orders" which proved so obnoxious to the laborers that it was necessary, in 1880, to pass a bill in the state legislature forbidding the payment of wages in "store orders, merchandise, printed, written, or verbal orders, or in due-bills of any kind," ([a]) the vital difference, however, being that under the old system the employee was forced to accept the store orders in lieu of wages, while under the present system they are accepted as an offset to wages earned but not due.

Under either one of these systems of conducting business the amount of goods sold the employee during the period or the amounts of the punch books issued to the employee are deducted from his wages by the company, and it is only in exceptional cases that the amounts purchased are allowed to exceed the amount earned during the period. These deductions are often equal to the entire wages earned by the employee during the period, and for the class of labor with which the present investigation dealt an examination of a pay roll amounting to $1,411.41 of one establishment showed that the deductions for the 127 persons represented equaled $483.02, or approximately 34 per cent. The relative amounts of these deductions varied considerably for different classes of employees, as is shown by the following table:

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[a] Act of March 12, 1880, "An act to secure to workmen the payment of wages in lawful money."

AMOUNT AND PER CENT OF DEDUCTIONS FROM EARNINGS OF EMPLOYEES MADE BY A COMPANY STORE, BY AGE, SEX, AND RACE OF EMPLOYEES.

Race and sex.	Employees.							
	Under 16.				16 to 20.			
	Number.	Earnings.	Deductions.		Number.	Earnings.	Deductions.	
			Amount.	Per cent of earnings.			Amount.	Per cent of earnings.
MALES.								
American, white	5	$36.20	$8.35	23.1	16	$190.30	$85.09	44.7
Italian	15	97.26	24.48	25.2	30	256.53	65.06	25.3
Other races	1	8.00			5	48.37	23.73	49.1
Total	21	141.46	32.83	23.2	51	495.20	173.88	35.1
FEMALES.								
American, white	1	10.00	4.35	43.5	1	10.00	7.63	76.3
German and French	1	10.00			2	20.00	3.36	16.8
Total	2	20.00	4.35	21.8	3	30.00	10.99	36.6
Grand total	23	161.46	37.18	23.0	54	525.20	184.87	35.2

Race and sex.	Employees 21 and over.								All employees.			
	Married.				Single.				Number.	Earnings.	Deductions.	
	Number.	Earnings.	Deductions.		Number.	Earnings.	Deductions.				Amount.	Per cent.
			Amount.	Per cent of earnings.			Amount.	Per cent of earnings.				
MALES.												
American, white	10	$164.90	$107.57	65.2	8	$100.10	$53.34	53.3	39	$491.50	$254.34	51.7
Italian	19	267.00	47.89	17.9	8	98.15	12.68	12.9	72	718.94	150.11	20.9
Other races	4	69.60	30.44	43.7	1	15.00	9.21	61.4	11	140.97	64.38	45.7
Total	33	501.50	185.90	37.1	17	213.25	75.23	35.3	122	1,351.41	467.68	34.6
FEMALES.												
American, white									2	20.00	11.98	59.9
German and French									3	30.00	3.36	11.2
Total									5	50.00	15.34	30.7
Grand total	33	501.50	185.90	37.1	17	213.25	75.23	35.3	127	1,411.41	483.02	34.2

In addition to the proportion of deductions for all classes it is of interest to note that the Americans who are largely dependent on the factory for their living received a little less than 50 per cent of their wages in cash, and that the men with families to support, where the need for saving was consequently greatest, received only 34.8 per cent of their wages in cash. Of the 10 married Americans shown in the table, 3 received an empty envelope, and of the 122 males represented, 19, or 16 per cent, received no money whatever on pay day. This is by no means an unusual occurrence, several cases located in different establishments being reported for several months consecutively. All such cases were carefully investigated, and as a result it was found that the situation was due not to shiftlessness or poor management but to the poor earning capacities of the uneducated and untrained workers of the family. It is also interesting to note that in one large establishment where three such cases occurred, all three families had been brought to the town by the glass company and the father given work on condition that he put his sons in the factory, and that two of the families had children illegally employed by the glass company at the time of the agent's visit.

The stores vary greatly also in the amount of the employees' business which they control and the amount of business done with patrons not employed by the company. Of the seven stores for which definite statements, made by the managers of the stores and verified by outside inquiries, are available, two had a considerable amount of trade in addition to that with employees. The other five stores were said by their managers to have practically no trade except that with employees, and of these five, two were located in towns of more than 10,000 people, where there were a variety of other employments open and where there was some competition. The fact that the trade of these stores was limited so completely to employees of the company would seem at least to indicate that because of higher prices charged by company stores or for other reasons there was on the part of the inhabitants a decided preference for the independent store.

The attitude of the employees as instanced by the numbers who trade at the company stores also throws much light on the subject. On this subject reliable data are at hand for only five establishments. Of these one reports that it controls the trade of approximately 75 per cent of its employees and practically all that of the families which furnish employees to the factory; two that they have the trade of from 40 to 50 per cent of the employees and of 60 per cent of the employees' families; and one that it controls the trade of 66 per cent of its employees. It is well to note in a consideration of these figures that they include the blowers and other skilled workmen who through their organizations have manifested a well-defined opposition to trading at the company store, and that inquiries made in all the factories showed that practically all the unskilled laborers who had families traded either wholly or in part at the company store. The relative amount of money spent at the store varied greatly, according to the type of workman and his economic position, as will be more clearly shown below; but the figures show in themselves, independent of the statements of the employees, that they find it clearly to their advantage to trade at the store, whether because of greater privileges granted or because they fear discrimination if they do not trade—questions which are more fully discussed later.

In the following table is shown for the families having either women or children employed in the glass factory and from whom it was possible to secure information as to the stores patronized and the amount bought at each, just how the trade is distributed, and to a certain extent, at least, upon what such distribution is based. The figures for blowers' families are misleading without the following explanation: An examination of the schedules shows that the blowers who put their children to work are for the most part those who either from incapacity or disinclination have earned comparatively little during the year and are consequently in a poor economic condition. Such families would, therefore, be to a large degree dependent on the company and would tend to buy from the company store. The facts shown below, therefore, are not representative in any way of blowers as a class, but only for blowers who are to an unusual degree dependent on the company.

FAMILIES REPORTED WHO BUY ALL, PART, AND NO SUPPLIES FROM COMPANY STORES, BY CONDITION OF HUSBAND.

Condition of husband.	Families who buy from company store—					
	All supplies.		Part of supplies.		No supplies.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Husband employed by company:						
Unskilled laborer	22	41.5	25	47.2	6	11.3
Blower	5	26.3	11	57.9	3	15.8
Other skilled workman	4	33.3	6	50.0	2	16.7
Total	31	36.9	42	50.0	11	13.1
Husband employed in other industry			2	11.1	16	88.9
Husband dead or incapacitated	6	30.0	6	30.0	8	40.0
Grand total	37	30.3	50	41.0	35	28.7

It will be seen from this table that while there is little difference between the classes who buy "all" or only "part" of their supplies from the company stores, there is a considerable difference between those who patronize the company stores and those who refuse to do so. The employees who patronize the company store are made up mainly from the unskilled laborers with large families, with a few skilled laborers, who patronize the store largely from habits ingrained during the years when formal compulsion was in force. As the case was put by one of them, "We've been trading there eighteen years and gotten along all right, why should we change now?" With the unskilled laborers the case is entirely different, the reasons given for trading at the company store, where it was possible to get a statement, being for the majority that they felt it necessary to do so in order to retain their positions in the factory, with a few attributing it to custom and the fact that the privilege of running a small account was of value to them, or in one case, to the superior quality of the goods handled by the company store. The employees who refused to buy, however, fall definitely into three classes—first, those families in which the chief wage-earner is not employed by the company; second, those by whom a sufficient amount of property is owned to make the family more or less independent; third, families which furnish boys to the factory and feel a certain independence on this account, a topic which will be more fully developed later.

The importance of whether the head of the family is employed by the company and whether he is a skilled or unskilled workman is shown most clearly by the relative numbers falling into the three groups in the above table, the dependence of the unskilled workman on the company store being clearly shown by the fact that 47, or 89 per cent, of all the unskilled laborers give all or part of their trade to the company store. Viewing the matter from another standpoint, however, the difference is even more striking. In the families buying altogether from the company store there were none in which the husband was employed in any other industry. Of the families buying only part of their supplies from the company store, only two had husbands employed in any other industry, while of those families who did not trade at all at the company store 16, or 46 per cent, had husbands employed in some other industry. In the remaining families the husbands were either dead or in some way incapacitated. Although the number of schedules in each of these groups is rather small, nevertheless, especially in view of the very wide differences that are seen to exist, they are sufficient to show that the families which do not feel themselves dependent on the company, because of the employment of the chief wage-earner there, do not trade at the company store. They also show that the families which feel this necessity of trading most keenly are those in which the responsible head is an unskilled workman dependent almost entirely, on account of the lack of industrial opportunities and the isolation of these towns, on the glass factory for steady employment.

An examination of incomes also shows this difference very clearly. Eliminating the skilled workmen from consideration, the average yearly income of the families who buy altogether from the company store is $797; of the families who buy only part of their supplies from the company store, the average annual income is $837; and of the families who do not trade at all at the store it is $849. The difference in economic conditions of these families is also very clearly shown by the fact that only one of the 37 families who buy altogether from the company store owns any property or has any savings; of those who buy only partly from the company store, 9, or 18 per cent, own property or have savings; while of those who do not buy at all from the company store, 13, or 37 per cent, either own some property or have money saved. It is also worth noting that of the 37 families who buy altogether from the company store, 26 live in company houses; of the 50 buying only partly at the company store, 14 live in company houses; and of the 35 families who do not buy from the company store, only 5 live in company houses.

From the point of view of this investigation, however, the most striking fact is the very great influence that having children employed in the factory has upon whether the family does or does not trade at the company store. This is easily seen from an examination of the following figures:

NUMBER AND PER CENT OF FAMILIES HAVING ONLY CHILDREN UNDER 16 EMPLOYED BY COMPANY, WHO BUY ALL, PART, AND NO SUPPLIES FROM COMPANY STORES.

	Total families.	Families having only children under 16 employed by company.	
		Number.	Per cent.
Families who buy all supplies from company store	37	5	13.5
Families who buy part of supplies from company store	50	16	32.0
Families who buy no supplies from company store	35	18	51.4

Apart from the mere interest that attaches to such statement, the fact that a family has one or more boys employed by the company seems to give it almost complete immunity as far as the company store is concerned. This was expressed very clearly by several mothers who said, "No, I don't trade at the company store. You see, my boy works there and boys are in demand just now." However, where one or more adults, either men or women, in a family are employed by the company, the fact of having the boy employed in the glass factory does not play so large a part.

It has been indicated in the above discussion that there is on the part of the employees a rather definite feeling of the necessity of trading at the company stores. It is not intended that this should be construed to mean that there is a definite form of compulsion exercised by the company over the employees, for the investigation failed to develop definitely anything more than rumors in such cases. Nevertheless, there is on the part of most of the persons employed a feeling that to fail to give the company stores at least a part of the trade makes an employee liable to be discharged, or at the least laid off temporarily as soon as such action does not interfere with the company's business. This was expressed in a number of ways, of which the following statements are typical: "Trade or no work;" "We have got to trade where our bread and butter comes from;" "Have to patronize the company store in order to hold our jobs;" "Persons dealing exclusively with the company store are given the preference for employment. Those who do not deal there are laid off;" "Prices are higher, but we have to trade there to keep from losing our positions." That the companies do, to a degree at least, foster such a feeling is indicated in a remark made by a manager of one of the company stores: "We furnish work to the employees and we expect them to give us the benefit of their trade."

With such an understanding as this generally prevalent, it is not necessary for the employer to attempt by definite and open action to force all his employees to trade exclusively at his store. Furthermore, such action would probably tend to injure his business by encouraging the employees to attempt by subterfuge to evade such compulsion. At any rate, this is the attitude adopted by one of the larger establishments where the manager said, and his statement is borne out by the employees, "Trading at the store is entirely optional; no persuasion is used other than carrying a full line of goods. We find employees are more likely to trade if we say nothing to them about it." In one of the companies the store manager seems to be made responsible to see that the company secures a reasonable amount of trade from the employees. He is said to keep close watch on the families and in various ways discourage the employees from buying at other stores. Taking the situation as a whole, however, the idea of compulsion seems to be general rather than specific. It is sufficient, nevertheless, to insure that the employee, unless he feels that he has either in his property or his ability sufficient resources to risk the company's displeasure, is unlikely to lay himself open to discrimination by buying elsewhere.

Aside from this idea of compulsion, the company store and company houses seem to play a large part in making the agreements by which families in which there are one or more boys available for the factory are induced to move from other communities. The agreement usually specifies that the father is to be given a laborer's place in the factory and is to be allowed a certain amount of credit per week at the company store during the working season and the summer shutdown, if the family will agree to live in a company house and keep all the available boys employed in the factory. As the families that are ready to make such an agreement are usually large and without savings, and consequently likely to be involved in debt to the company soon after entering its employ, the system provides an efficient means of retaining such boys as long as a manager chooses.

Having shown how large a proportion of the employees do trade at the company stores and that they feel to a certain degree the necessity of so doing, it is of interest to examine the comparative prices asked for goods by the company stores and by independent stores in the same locality. In order to make such comparison worth while, the information on this subject is given by localities, and the prices selected are those for articles bearing a trade-mark or of staples of which the quality can not vary greatly.

PRICES OF COMMODITIES IN FIRST LOCALITY.

[Population over 10,000; competition active; no feeling of compulsion expressed by families visited.]

	Two company stores.	Independent store doing credit business.
Mother's oats, per box	$0.12	$0.12
Toasted corn flakes, per box	.10	.12
Silver milk, per can	.12	.11
Pillsbury's best flour, per 24 pounds	.95	.90
Granulated sugar, per pound	.05½	.05½
Kerosene, per gallon	.12	.12

PRICES OF COMMODITIES IN SECOND LOCALITY.

[Population over 10,000; competition active; necessity of trading at company store expressed by several families from each establishment.]

	Company store.	Company store.	Independent store doing credit business.
Mother's oats, per box	$0.12	$0.12	$0.10
Salmon (Horseshoe brand), per can	.18	.15	.15
Lard, per pound	.14	.13	.12
Gold Medal flour, per 24 pounds	1.00	.95	.95
Hecker's buckwheat, per package	.16	.15	.15
Table meal, per quart	.03½	.03	.03
Granulated sugar, per pound	.06⅜	.06	.06
Kerosene, per gallon	.14	.13	.12

PRICES OF COMMODITIES IN THIRD LOCALITY.

[Population under 2,000; little competition; company store controls practically all the trade of the employees. Necessity of trading at company store expressed by the majority of the families visited.]

	Company store.	Independent store doing credit business.	Independent store doing cash business.
Mother's oats, per box	$0.12	$0.12	$0.11
Van Camp's cream, per can	.12	....	.11
Gold Medal flour, per 24 pounds	.95	.90	.90
Granulated sugar, per pound	.06½	.06	.06
Hecker's buckwheat, per package	.18	....	.15
Cracked corn, per hundredweight	1.82	....	1.75

These prices were obtained from the managers of the stores in each locality and were afterwards verified by several housewives familiar with the prices in each store. The articles upon which prices are quoted are among the staples which form a large part of the food consumed. It was on these articles that the greatest difference of price was found to exist. Upon the less important things, such as pepper, yeast, and condiments of various kinds the prices were found to be practically the same. The variations in price where such exist range from 5 to 20 per cent, being for the most part less than 10 per cent. Further comment upon these tables is unnecessary, except to point out the difference that such advances in price would make where all the trade of a family is given exclusively to the company store.

This difference in the prices asked by independent and by company stores is admitted by at least one employer, who maintains, however, that it is due and made necessary by the fact that a large part of the company's business consists of credit transactions. Granting that a small, but relatively insignificant amount of real credit business is done, an examination of the facts in the case shows that what he is pleased to denominate "credit" is not credit at all, but rather prepayment for the goods obtained on the part of the employees. By supplying to the employee goods from the company store, the value of which is to be deducted from his earnings at the end of the pay-roll period, the employer thereby secures a reduction in the amount of money which it is necessary to provide for his pay rolls and is thus enabled to operate with much less active capital than a competitor whose pay rolls must be paid in cash and who loses the interest on the money which thus passes out of his hands and into those of his employees. Furthermore, the company store, on account of its financial standing, which its identification with the manufacturing end of the business gives, is able to obtain much better terms from the wholesale merchant than the independent store operating on a small capital. These advantages more than balance any disadvantages that the company store may be under on account of genuine credit accounts which the manager chooses to carry, and put it directly on a level with the store which sells for cash only, and, as has been shown above and admitted by the employer in question, the prices asked by the cash stores are considerably lower than those of the company store.

To sum up the conclusions given above: From the point of view of the employer, the operation of a company store in connection with the manufacture of glass would seem to be economically and industrially advantageous, at least as far as the first effects of such systems are concerned. The cash profits to be derived are large, the prepayment for goods by deductions from the employees' wages reduce the necessary amount of active capital, and the system gives the employer control to a great degree over his labor force. In its secondary effects, however, the system would seem to be likely to injure the manufacturer's business. This opinion was expressed by two manufacturers. The first, who did not conduct a company store, said that he did not do so because be believed the system to be in every way bad, both for the owner and for the workmen. The second, who did conduct a company store, complained that he was forced to employ a number of inefficient laborers in order to regain the debts which they had contracted at the company stores, and further said that if he were to reestablish his factory in a well-developed community, he would by no means establish a company store in connection with it. To the workman the company store is disadvantageous from every point of view; the company is given a control over him which, if the employer chooses to exercise it, he is powerless to break, his wages are virtually reduced, and his freedom seriously interfered with. Finally, the company store, as an institution, has served its time and, as far as the present industry is concerned, there seems to be no reason, except for the profit received by the manufacturer, for its continuance.

CHAPTER XXIV.

GENERAL TABLES.

TABLE I.—EMPLOYEES, BY AGE AND SEX, FOR EACH STATE.

This table shows for each State the number and per cent of male and female employees of specified ages employed in the glass factories covered by this investigation in a representative week. In some instances the facts for two or more States have been combined; as, Massachusetts and Connecticut; Wisconsin, Missouri, and Kansas; Maryland and Virginia; Tennessee, Georgia, and South Carolina. This was done either because there was only one establishment investigated in a State or because the employees of the factories investigated were so few that it was thought better to combine them than to show the facts separately. First for the males and then for the females, in the case of each State, the number and per cent are presented in parallel columns, the per cents being the per cent which the number at each specified age is of the total number of the sex. The table includes for the establishments investigated all female employees and all males employed in the furnace rooms who worked in occupations in which women or children were employed. A few male employees under 16 who worked in other departments than the furnace room have been omitted from the table for the reason that data were not secured for males 16 and over working in the same departments, and to include the males under 16 would make the percentage of employees of the younger ages greater than the real conditions justify. The total number of such males not included in the table is 116. The figures refer to the employees on the pay rolls of the several establishments during a particular pay period toward the end of 1907 or in the early part of 1908. The pay-roll period selected was, as a rule, the one just prior to the investigation by the agent of the Bureau.

The ages, especially of the younger children, were verified in as large a number of cases as time would permit. Wherever certificates or other evidences of the ages of children were on file at the factory they were examined for verification. Wherever it appeared to the agent that the ages reported by the children in the factory, or as stated in the certificates, were not correct, inquiry was made in the home, and documentary evidence, if there existing, was examined and the ages as reported were corrected if the evidence was conclusive. Examination was also made of school and of birth records, where such were available, as furnishing evidence of the child's age. If no evidence was found, or if it was of a doubtful character, the age was accepted and reported as given by the child, the official, or the parents, as the case might be. In no case was the age of any child tabulated other than as reported by the factory official or the parent or the child, unless the age so reported was proved incorrect and the correct age was established by conclusive evidence.

Complete reports of the ages of adult employees were not secured in all cases. In a certain proportion of the cases, the best information that could be secured was in the form of "21 and over."

An examination of the columns of the table relating to Pennsylvania shows that 2,917 males were found employed in the furnace rooms of the establishments in that State. This, it should be understood, includes all males under 16 years of age, but at 16 and above only those who were engaged in occupations where women or children also worked. It will be seen that detailed age reports were secured for all but 53 employees or 1.8 per cent of the total.

The exact number and per cent are shown for each specified age

TABLE I.—NUMBER AND PER CENT OF MALE AND FEMALE EMPLOYEES REPRESENTATIVE

Marginal number.	Age.	Massachusetts and Connecticut.				New York.				New Jersey.			
		Males.		Females.		Males.		Females.		Males.		Females.	
		Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
1	Under 12 years	......	......	......	......	......	......	......	......	1	0.1	......	......
2	12 years	......	......	......	......	......	......	......	......	2	.1	......	......
3	13 years	......	......	......	......	......	......	......	......	10	.6	......	......
4	14 years	5	7.0	......	......	24	3.8	2	0.9	155	9.3	2	1.6
5	15 years	16	22.2	......	......	44	6.9	10	4.4	226	13.6	15	12.1
6	16 years	15	20.8	1	2.2	147	23.0	37	16.4	229	13.8	15	12.1
7	17 years	16	22.2	4	8.7	85	13.3	31	13.8	228	13.7	17	13.7
8	18 years	8	11.1	3	6.5	95	14.9	34	15.1	214	12.8	14	11.3
9	19 years	6	8.3	4	8.7	55	8.6	18	8.0	170	10.2	14	11.3
10	20 years	3	4.2	2	4.3	43	6.7	11	4.9	130	7.8	10	8.1
11	21 years	1	1.4	1	2.2	27	4.2	15	6.7	76	4.6	8	6.5
12	22 years	......	......	......	......	14	2.2	4	1.8	41	2.5	4	3.2
13	23 years	......	......	......	......	13	2.0	6	2.7	31	1.9	3	2.4
14	24 years	......	......	......	......	10	1.6	3	1.3	22	1.3	4	3.2
15	25 to 34 years	......	......	......	......	43	6.7	15	6.7	64	3.8	9	7.3
16	35 to 44 years	1	1.4	......	......	10	1.6	6	2.7	24	1.4	3	2.4
17	45 years and over	......	......	......	......	9	1.4	1	.4	18	1.1	4	3.1
18	Others, reported as 21 years and over.	1	1.4	31	67.4	20	3.1	32	14.2	24.	1.4	2	1.6
	Total	72	100.0	46	100.0	639	100.0	225	100.0	1,665	100.0	124	100.0

Marginal number.	Age.	Illinois.				Wisconsin, Missouri, and Kansas.				West Virginia.			
		Males.		Females.		Males.		Females.		Males.		Females.	
		Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
1	Under 12 years	......	......	......	......	......	......	......	......	14	1.8	......	......
2	12 years	......	......	......	......	......	......	......	......	20	2.6	2	0.4
3	13 years	......	......	......	......	1	0.2	......	......	44	5.8	6	1.3
4	14 years	93	6.0	1	0.4	38	9.3	......	......	169	22.2	22	4.6
5	15 years	163	10.6	7	2.8	47	11.5	3	4.5	147	19.3	44	9.3
6	16 years	225	14.6	61	24.5	85	20.7	6	8.9	118	15.5	62	13.0
7	17 years	183	11.9	39	15.7	68	16.6	4	6.0	88	11.6	46	9.7
8	18 years	158	10.2	43	17.3	50	12.2	8	11.9	58	7.6	42	8.8
9	19 years	111	7.2	21	8.5	27	6.6	4	6.0	26	3.4	43	9.0
10	20 years	91	5.9	16	6.4	23	5.6	5	7.5	19	2.5	33	6.9
11	21 years	66	4.3	6	2.4	12	2.9	......	......	13	1.7	29	6.1
12	22 years	60	3.9	4	1.6	7	1.7	3	4.5	9	1.2	16	3.4
13	23 years	37	2.4	8	3.2	5	1.2	2	3.0	2	.3	11	2.3
14	24 years	40	2.6	5	2.0	3	.7	2	3.0	5	.7	10	2.1
15	25 to 34 years	185	12.0	17	6.8	31	7.6	13	19.4	6	.8	41	8.6
16	35 to 44 years	63	4.1	11	4.4	8	2.0	10	14.9	5	.7	17	3.6
17	45 years and over	57	3.7	2	.8	2	.5	7	10.4	7	.9	4	.8
18	Others, reported as 21 years and over.	9	.6	8	3.2	3	.7	......	......	11	1.4	48	10.1
	Total	1,541	100.0	249	100.0	410	100.0	67	100.0	761	100.0	476	100.0

as reported up to 24 years. Beyond that the employees are grouped into 25 to 34 years, 35 to 44 years, and 45 years and over. The largest percentage of males for any single year it will be seen was found at 14 years of age, namely, 22.4 per cent.

An examination of the columns relating to female employees shows the employment in the Pennsylvania establishments investigated of 1,319. For these the exact ages were reported save for 46, where the report was 21 years and over, constituting 3.5 per cent of the total. The percentage column shows that the greatest percentage of women were 16 years of age, namely, 17.7 per cent. The figures relating to the other States may be examined and will show in like manner the number and per cent employed at each age.

OF SPECIFIED AGES IN GLASS FACTORIES INVESTIGATED, IN A WEEK, BY STATES.

Pennsylvania.				Ohio.				Indiana.				Marginal number.
Males.		Females.		Males.		Females.		Males.		Females.		
Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	
8	0.3	......	......	......	......	......	......	1	0.1	......	......	1
12	.4	1	0.1	1	0.1	......	......	5	.3	......	......	2
66	2.3	5	.4	6	.3	......	......	4	.2	1	0.4	3
654	22.5	116	8.8	118	5.8	12	2.3	133	7.2	5	1.8	4
638	21.9	169	12.8	257	12.5	30	5.6	252	13.6	27	10.0	5
590	20.3	233	17.7	540	26.4	89	16.8	306	16.5	34	12.6	6
353	12.1	181	13.7	396	19.3	82	15.5	301	16.3	52	19.2	7
231	7.9	138	10.5	299	14.6	80	15.1	243	13.1	50	18.5	8
114	3.9	99	7.5	148	7.2	38	7.2	154	8.3	19	7.0	9
88	3.0	77	5.8	73	3.6	37	7.0	107	5.8	16	5.9	10
36	1.2	60	4.6	41	2.0	21	4.0	55	3.0	9	3.3	11
13	.5	44	3.3	25	1.2	15	2.8	56	3.0	10	3.7	12
11	.4	28	2.1	9	.4	16	3.0	30	1.6	2	.7	13
6	.2	28	2.1	10	.5	10	1.9	13	.7	5	1.8	14
27	.9	70	5.3	46	2.3	29	5.5	59	3.2	14	5.2	15
10	.3	19	1.4	19	.9	7	1.3	13	.7	5	1.8	16
3	.1	5	.4	13	.6	4	.7	46	2.5	......	......	17
53	1.8	46	3.5	48	2.3	60	11.3	72	3.9	22	8.1	18
2,913	100.0	1,319	100.0	2,049	100.0	530	100.0	1,850	100.0	271	100.0	

Maryland and Virginia.				Tennessee, South Carolina, and Georgia.				Total.				Marginal number.
Males.		Females.		Maesl.		Females.		Males.		Females.		
Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	
8	1.8	......	......	1	0.9	......	......	33	0.3	......	......	1
13	2.9	......	......	5	4.4	......	......	58	.5	3	0.1	2
32	7.1	......	......	8	7.1	......	......	171	1.4	12	.4	3
73	16.1	......	......	16	14.0	......	......	1,478	11.9	160	4.8	4
68	15.0	2	13.3	17	14.9	......	......	1,875	15.0	307	9.3	5
91	20.1	4	26.7	16	14.0	......	......	2,362	18.9	542	16.3	6
53	11.7	2	13.3	16	14.0	......	......	1,787	14.3	458	13.8	7
52	11.5	4	26.7	18	15.8	......	......	1,426	11.4	416	12.5	8
23	5.1	1	6.7	6	5.3	......	......	840	6.7	261	7.9	9
17	3.7	......	......	3	2.6	......	......	597	4.8	207	6.2	10
7	1.5	......	......	3	2.6	......	......	337	2.7	149	4.5	11
8	1.8	......	......	1	.9	......	......	234	1.9	100	3.0	12
5	1.1	2	13.3	......	......	......	......	143	1.2	78	2.3	13
2	.4	......	......	......	......	......	......	111	.9	67	2.0	14
1	.2	......	......	1	.9	......	......	463	3.7	208	6.3	15
......	......	......	......	......	......	......	......	153	1.2	78	2.3	16
......	......	......	......	......	......	......	......	155	1.2	27	.8	17
......	......	......	......	3	2.6	......	......	244	2.0	249	7.5	18
453	100.0	15	100.0	114	100.0	......	......	12,467	100.0	3,322	100.0	

TABLE II.—EMPLOYEES OF EACH RACE FOR EACH STATE AND FOR ALL STATES COMBINED.

This table shows for each State the number and per cent of male and female employees of each race who are under 16 and 16 years of age and over. In a few cases the figures for two or more States have been combined, as explained in connection with Table I. The figures are also presented for all States in which the investigation was made combined. The table includes for the establishments investigated all female employees in departments other than the furnace room and all males employed in the furnace rooms who worked in occupations where any women or children were engaged for whom the facts covered by the table were reported. The males 16 years of age and over in occupations employing no women and children are omitted. The figures refer to the employees on the pay rolls of the several establishments during a particular pay period toward the end of 1907 or in the early part of 1908.

Reference to that part of the table relating to all States combined shows that the American males numbered 6,786, of which number 1,945, or 28.7 per cent, were under 16 and 4,841, or 71.3 per cent, were 16 years of age and over. Of the 1,690 American females, 198, or 11.7 per cent, were under 16 years and 1,492, or 88.3 per cent, were 16 years of age and over. The facts are shown for each specified race and for the specified States.

TABLE II.—NUMBER AND PER CENT OF MALE AND FEMALE EMPLOYEES IN SELECTED AGE GROUPS, BY RACE, FOR EACH STATE AND FOR ALL STATES COMBINED.

MASSACHUSETTS AND CONNECTICUT.

Age.	American.				English.				French.			
	Male.		Female.		Male.		Female.		Male.		Female.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Under 16 years	9	52.9	......	......	1	7.7	......	......	3	75.0	......	......
16 years and over	8	47.1	12	100.0	12	92.3	4	100.0	1	25.0	2	100.0
Total	17	100.0	12	100.0	13	100.0	4	100.0	4	100.0	2	100.0

	German.				Irish.				Italian.			
Under 16 years	......	......	......	......	2	16.7	......	......	......	......	......	......
16 years and over	3	100.0	......	......	10	83.3	19	100.0	......	......	1	100.0
Total	3	100.0	......	......	12	100.0	19	100.0	......	......	1	100.0

	Slav.				Other races.				Total.			
Under 16 years	......	......	......	......	6	30.0	......	......	21	29.2	......	......
16 years and over	3	100.0	......	......	14	70.0	8	100.0	51	70.8	46	100.0
Total	3	100.0	......	......	20	100.0	8	100.0	72	100.0	46	100.0

TABLE II.—NUMBER AND PER CENT OF MALE AND FEMALE EMPLOYEES IN SELECTED AGE GROUPS, BY RACE, FOR EACH STATE AND FOR ALL STATES COMBINED—Continued.

NEW YORK.

Age.	American, white.				American, colored.				English.			
	Male.		Female.		Male.		Female.		Male.		Female.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Under 16 years...	33	11.5	2	2.1	......	......	......	......	1	6.3	......	......
16 years and over.	255	88.5	95	97.9	2	100.0	......	......	15	93.7	13	100.0
Total.......	288	100.0	97	100.0	2	100.0	......	......	16	100.0	13	100.0

	French.				German.				Greek.			
Under 16 years...	1	33.3	1	25.0	11	14.3	4	12.9	......	......	......	......
16 years and over.	2	66.7	3	75.0	66	85.7	27	87.1	4	100.0	......	......
Total.......	3	100.0	4	100.0	77	100.0	31	100.0	4	100.0	......	......

	Irish.				Italian.				Slav.			
Under 16 years...	......	......	......	......	11	7.7	......	......	11	21.2	5	20.0
16 years and over.	27	100.0	48	100.0	132	92.3	2	100.0	41	78.8	20	80.0
Total.......	27	100.0	48	100.0	143	100.0	2	100.0	52	100.0	25	100.0

Age.	Other races.				Total.			
	Male.		Female.		Male.		Female.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Under 16 years..................................	......	......	......	......	68	10.6	12	5.3
16 years or over................................	27	100.0	5	100.0	571	89.4	213	94.7
Total..	27	100.0	5	100.0	639	100.0	225	100.0

NEW JERSEY.

Age	American, white.				American, colored.				English.			
	Male.		Female.		Male.		Female.		Male.		Female.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Under 16 years...	271	24.7	12	12.2	14	15.7	......	......	10	47.6	......	......
16 years and over.	825	75.3	86	87.8	75	84.3	......	......	11	52.4	3	100.0
Total.......	1,096	100.0	98	100.0	89	100.0	......	......	21	100.0	3	100.0

TABLE II.—NUMBER AND PER CENT OF MALE AND FEMALE EMPLOYEES IN SELECTED AGE GROUPS, BY RACE, FOR EACH STATE AND FOR ALL STATES COMBINED—Continued.

NEW JERSEY—Concluded.

Age.	French.				German.				Greek.			
	Male.		Female.		Male.		Female.		Male.		Female.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Under 16 years	3	37.5	1	50.0	23	25.8	3	21.4	......	......	......	......
16 years and over	5	62.5	1	50.0	66	74.2	11	78.6	38	100.0	......	......
Total	8	100.0	2	100.0	89	100.0	14	100.0	38	100.0	......	......

Age.	Irish.				Italian.				Slav.			
Under 16 years	11	31.4	1	16.7	53	21.5	......	......	7	23.3	......	......
16 years and over	24	68.6	5	83.3	193	78.5	......	......	23	76.7	......	......
Total	35	100.0	6	100.0	246	100.0	......	......	30	100.0	......	......

Age.	Other races.				Total.			
	Male.		Female.		Male.		Female.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Under 16 years	2	15.4	......	......	394	23.7	17	13.7
16 years and over	11	84.6	1	100.0	1,271	76.3	107	86.3
Total	13	100.0	1	100.0	1,665	100.0	124	100.0

PENNSYLVANIA.

Age.	American, white.				American, colored.				English.			
	Male.		Female.		Male.		Female.		Male.		Female.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Under 16 years	519	46.0	65	15.9	11	22.0	2	66.7	61	52.1	15	18.8
16 years and over	610	54.0	345	84.1	39	78.0	1	33.3	56	47.9	65	81.2
Total	1,129	100.0	410	100.0	50	100.0	3	100.0	117	100.0	80	100.0

Age.	French.				German.				Greek.			
Under 16 years	37	40.7	18	29.5	179	51.3	53	19.1	1	33.3	......	......
16 years and over	54	59.3	43	70.5	170	48.7	224	80.9	2	66.7	......	......
Total	91	100.0	61	100.0	349	100.0	277	100.0	3	100.0	......	......

Age.	Irish.				Italian.				Slav.			
Under 16 years	97	50.0	8	8.3	153	38.2	8	20.5	250	56.1	108	37.5
16 years and over	97	50.0	88	91.7	248	61.8	31	79.5	196	43.9	180	62.5
Total	194	100.0	96	100.0	401	100.0	39	100.0	446	100.0	288	100.0

TABLE II.—NUMBER AND PER CENT OF MALE AND FEMALE EMPLOYEES IN SELECTED AGE GROUPS, BY RACE, FOR EACH STATE AND FOR ALL STATES COMBINED—Continued.

PENNSYLVANIA—Concluded.

Age.	Other races.				Total.			
	Male.		Female.		Male.		Female.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Under 16 years	70	52.6	14	21.5	1,378	47.3	291	22.1
16 years and over	63	47.4	51	78.5	1,535	52.7	1,028	77.9
Total	133	100.0	65	100.0	2,913	100.0	1,319	100.0

OHIO.

Age.	American, white.				American, colored.				English.			
	Male.		Female.		Male.		Female.		Male.		Female.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Under 16 years	219	19.7	26	7.6	9	11.1	......	......	10	23.3	1	8.3
16 years and over	893	80.3	318	92.4	72	88.9	......	......	33	76.7	11	91.7
Total	1,112	100.0	344	100.0	81	100.0	......	......	43	100.0	12	100.0

	French.				German.				Greek.			
Under 16 years	11	28.9	......	......	73	24.8	6	6.7	3	6.8	......	......
16 years and over	27	71.1	10	100.0	221	75.2	84	93.3	41	93.2	......	......
Total	38	100.0	10	100.0	294	100.0	90	100.0	44	100.0	......	......

	Irish.				Italian.				Slav.			
Under 16 years	7	16.3	1	3.7	3	7.1	......	......	39	13.0	8	24.2
16 years and over	36	83.7	26	96.3	39	92.9	......	......	262	87.0	25	75.8
Total	43	100.0	27	100.0	42	100.0	......	......	301	100.0	33	100.0

Age.	Other races.				Total.			
	Male.		Female.		Male.		Female.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Under 16 years	8	15.7	......	......	382	18.6	42	7.9
16 years and over	43	84.3	14	100.0	1,667	81.4	488	92.1
Total	51	100.0	14	100.0	2,049	100.0	530	100.0

TABLE II.—NUMBER AND PER CENT OF MALE AND FEMALE EMPLOYEES IN SELECTED AGE GROUPS, BY RACE, FOR EACH STATE AND FOR ALL STATES COMBINED—Continued.

INDIANA.

Age.	American, white.				American, colored.				English.			
	Male.		Female.		Male.		Female.		Male.		Female.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Under 16 years	328	22.0	24	10.8	15	13.4			7	14.3		
16 years and over	1,166	78.0	198	89.2	97	86.6	1	100.0	42	85.7	8	100.0
Total	1,494	100.0	222	100.0	112	100.0	1	100.0	49	100.0	8	100.0

	French.				German.				Greek.			
Under 16 years	1	12.5	1	8.3	18	24.3	5	25.0				
16 years and over	7	87.5	11	91.7	56	75.7	15	75.0	3	100.0		
Total	8	100.0	12	100.0	74	100.0	20	100.0	3	100.0		

	Irish.				Italian.				Slav.			
Under 16 years	8	17.0	1	33.3	1	16.7					1	100.0
16 years and over	39	83.0	2	66.7	5	83.3			4	100.0		
Total	47	100.0	3	100.0	6	100.0			4	100.0	1	100.0

Age.	Other races.				Total.			
	Male.		Female.		Male.		Female.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Under 16 years	17	32.1	1	25.0	395	21.4	33	12.2
16 years and over	36	67.9	3	75.0	1,455	78.6	238	87.8
Total	53	100.0	4	100.0	1,850	100.0	271	100.0

ILLINOIS.

Age.	American, white.				American, colored.				English.			
	Male.		Female.		Male.		Female.		Male.		Female.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Under 16 years	117	19.9	3	3.3	7	3.6			20	44.4		
16 years and over	470	80.1	87	96.7	188	96.4	4	100.0	25	55.6	3	100.0
Total	587	100.0	90	100.0	195	100.0	4	100.0	45	100.0	3	100.0

TABLE II.—NUMBER AND PER CENT OF MALE AND FEMALE EMPLOYEES IN SELECTED AGE GROUPS, BY RACE, FOR EACH STATE AND FOR ALL STATES COMBINED—Continued.

ILLINOIS—Concluded.

Age.	French.				German.				Greek.			
	Male.		Female.		Male.		Female.		Male.		Female.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent	Number.	Per cent.	Number.	Per cent.
Under 16 years	......	......	......	......	54	33.5	2	5.9	5	2.8	......	......
16 years and over	4	100.0	1	100.0	107	66.5	32	94.1	174	97.2	......	......
Total	4	100.0	1	100.0	161	100.0	34	100.0	179	100.0	......	......

	Irish.				Italian.				Slav.			
Under 16 years	3	15.8	......	......	10	5.2	1	50.0	32	29.9	1	2.1
16 years and over	16	84.2	7	100.0	183	94.8	1	50.0	75	70.1	46	97.9
Total	19	100.0	7	100.0	193	100.0	2	100.0	107	100.0	47	100.0

Age.	Other races.				Total.			
	Male.		Female.		Male.		Female.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Under 16 years	8	15.7	......	......	256	16.6	7	3.6
16 years and over	43	84.3	4	100.0	1,285	83.4	185	96.4
Total	51	100.0	4	100.0	1,541	100.0	192	100.0

WISCONSIN, MISSOURI, AND KANSAS.

Age.	American, white.				American, colored.				English.			
	Male.		Female.		Male.		Female.		Male.		Female.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Under 16 years	18	15.0	3	5.9	15	34.9	......	......	......	......	......	......
16 years and over	102	85.0	48	94.1	28	65.1	2	100.0	4	100.0	1	100.0
Total	120	100.0	51	100.0	43	100.0	2	100.0	4	100.0	1	100.0

	French.				German.				Greek.			
Under 16 years	......	......	......	......	22	28.9	......	......	......	......	......	......
16 years and over	1	100.0	......	......	54	71.1	......	......	4	100.0	......	......
Total	1	100.0	......	......	76	100.0	......	......	4	100.0	......	......

	Irish.				Italian.				Slav.			
Under 16 years	......	......	......	......	1	20.0	......	......	29	28.4	......	......
16 years and over	2	100.0	3	100.0	4	80.0	......	......	73	71.6	......	......
Total	2	100.0	3	100.0	5	100.0	......	......	102	100.0	......	......

TABLE II.—NUMBER AND PER CENT OF MALE AND FEMALE EMPLOYEES IN SELECTED AGE GROUPS, BY RACE, FOR EACH STATE AND FOR ALL STATES COMBINED—Continued.

WISCONSIN, MISSOURI, AND KANSAS—Concluded.

Age.	Other races.				Total.			
	Male.		Female.		Male.		Female.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Under 16 years	1	1.9	......	......	86	21.0	3	5.3
16 years and over	52	98.1	......	......	324	79.0	54	94.7
Total	53	100.0	......	......	410	100.0	57	100.0

WEST VIRGINIA.

Age.	American, white.				American, colored.				English.			
	Male.		Female.		Male.		Female.		Male.		Female.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Under 16 years	284	49.2	61	17.3	4	80.0	......	......	10	52.6	......	......
16 years and over	293	50.8	291	82.7	1	20.0	......	......	9	47.4	13	100.0
Total	577	100.0	352	100.0	5	100.0	......	......	19	100.0	13	100.0

	French.				German.				Greek.			
Under 16 years	7	38.9	2	13.3	38	58.5	10	15.9	......	......	......	......
16 years and over	11	61.1	13	86.7	27	41.5	53	84.1	1	100.0	......	......
Total	18	100.0	15	100.0	65	100.0	63	100.0	1	100.0	......	......

	Irish.				Italian.				Slav.			
Under 16 years	6	46.2	......	......	19	67.9	......	......	17	68.0	......	......
16 years and over	7	53.8	15	100.0	9	32.1	3	100.0	8	32.0	7	100.0
Total	13	100.0	15	100.0	28	100.0	3	100.0	25	100.0	7	100.0

Age.	Other races.				Total.			
	Male.		Female.		Male.		Female.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Under 16 years	9	90.0	1	12.5	394	51.8	74	15.5
16 years and over	1	10.0	7	87.5	367	48.2	402	84.5
Total	10	100.0	8	100.0	761	100.0	476	100.0

Table II.—NUMBER AND PER CENT OF MALE AND FEMALE EMPLOYEES IN SELECTED AGE GROUPS, BY RACE, FOR EACH STATE AND FOR ALL STATES COMBINED—Continued.

MARYLAND AND VIRGINIA.

Age.	American, white.				American, colored.				English.			
	Male.		Female.		Male.		Female.		Male.		Female.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Under 16 years	110	39.1	2	14.3	61	52.6	......	......	......	......	......	......
16 years and over	171	60.9	12	85.7	55	47.4	......	......	1	100.0	......	......
Total	281	100.0	14	100.0	116	100.0	......	......	1	100.0	......	......

	French.				German.				Greek.			
Under 16 years	......	......	......	......	16	43.2	......	......	......	......	......	......
16 years and over	1	100.0	......	......	21	56.8	1	100.0	......	......	......	......
Total	1	100.0	......	......	37	100.0	1	100.0	......	......	......	......

	Irish.				Italian.				Slav.			
Under 16 years	5	38.5	......	......	1	100.0	......	......	......	......	......	......
16 years and over	8	61.5	......	......	......	......	......	......	1	100.0	......	......
Total	13	100.0	......	......	1	100.0	......	......	1	100.0	......	......

Age.	Other races.				Total.			
	Male.		Female.		Male.		Female.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Under 16 years	1	50.0	......	......	194	42.8	2	13.3
16 years and over	1	50.0	......	......	259	57.2	13	86.7
Total	2	100.0	......	......	453	100.0	15	100.0

TENNESSEE, GEORGIA, AND SOUTH CAROLINA.

Age.	American, white.				American, colored.				Total.			
	Male.		Female.		Male.		Female.		Male.		Female.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Under 16 years	36	42.4	......	......	11	37.9	......	......	47	41.2	......	......
16 years and over	49	57.6	......	......	18	62.1	......	......	67	58.8	......	......
Total	85	100.0	......	......	29	100.0	......	......	114	100.0	......	......

TABLE II.—NUMBER AND PER CENT OF MALE AND FEMALE EMPLOYEES IN SELECTED AGE GROUPS, BY RACE, FOR EACH STATE AND FOR ALL STATES COMBINED—Concluded.

ALL STATES.

Age.	American, white.				American, colored.				English.			
	Male.		Female.		Male.		Female.		Male.		Female.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Under 16 years...	1,944	28.6	198	11.7	147	20.4	2	20.0	120	36.6	16	11.7
16 years and over.	4,842	71.4	1,492	88.3	575	79.6	8	80.0	208	63.4	121	88.3
Total.......	6,786	100.0	1,690	100.0	722	100.0	10	100.0	328	100.0	137	100.0

	French.				German.				Greek.			
Under 16 years...	63	35.8	23	21.5	434	35.4	83	15.7	9	3.3	....	......
16 years and over.	113	64.2	84	78.5	791	64.6	447	84.3	267	96.7	....	......
Total.......	176	100.0	107	100.0	1,225	100.0	530	100.0	276	100.0	....	......

	Irish.				Italian.				Slav.			
Under 16 years...	139	34.3	11	4.9	252	23.7	9	19.1	385	35.9	123	30.7
16 years and over.	266	65.7	213	95.1	813	76.3	38	80.9	686	64.1	278	69.3
Total.......	405	100.0	224	100.0	1,065	100.0	47	100.0	1,071	100.0	401	100.0

Age.	Other races.				Total.			
	Male.		Female.		Male.		Female.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Under 16 years..................................	122	29.5	16	14.7	3,615	29.0	481	14.8
16 years and over................................	291	70.5	93	85.3	8,852	71.0	2,774	85.2
Total..	413	100.0	109	100.0	12,467	100.0	3,255	100.0

TABLE III.—CONJUGAL CONDITION OF FEMALE EMPLOYEES.

This table shows for all races and all States combined the conjugal condition of all female employees for whom the facts covered by the table were reported. The division into age groups is under 15 years, followed by the exact ages up to 24, then by 5-year groups to 34, followed by 10-year groups to 64. For a few the age was reported only as 21 years and over. The table shows the number of single, of married, and of widowed, divorced, separated, and deserted, and the total number.

As in preceding tables, the figures refer to the employees on the pay rolls of the several establishments investigated during a particular pay period toward the end of 1907 or in the early part of 1908.

Reference to the table shows that in the glass factories investigated there were 3,322 female employees and that 3,054 of these were single, 159 married, and 109 widowed, divorced, separated, or deserted. The age at which the largest number of employees appeared was 16, where we find 538 persons, all but one of whom were reported single. The largest number of single women are found of the same age, namely, 16 years. The largest number of married found in any specific age or age group was at 35 to 44 years, where 30 persons were reported. In the same age group the largest number of widowed, divorced, etc., were also found, with the exception of the group reported as 21 years and over. The table shows in like manner the number of female employees of each conjugal condition and each age or age group.

TABLE III.—CONJUGAL CONDITION OF FEMALE EMPLOYEES, BY AGE, FOR ALL RACES AND ALL STATES COMBINED.

Age.	Single.	Married.	Widowed, divorced, separated, and deserted.	Total.
Under 15 years	176			176
15 years	306			306
16 years	537		1	538
17 years	455	4		459
18 years	409	4	3	416
19 years	255	4	2	261
20 years	197	10		207
21 years	143	5	2	150
22 years	92	6	3	101
23 years	71	2	5	78
24 years	55	9	3	67
25 to 29 years	106	23	8	137
30 to 34 years	36	17	19	72
35 to 44 years	29	30	20	79
45 to 54 years	3	8	9	20
55 to 64 years		1	4	5
65 years and over			1	1
Others, reported as 21 years and over	184	36	29	249
Total	3,054	159	109	3,322

TABLE IV.—PER CENT OF FEMALE EMPLOYEES OF EACH CONJUGAL CONDITION, FOR ALL STATES COMBINED.

This table shows for all races and all States combined the number of female employees of each specified age and the per cent of that number who were single, married, and widowed, divorced, separated, and deserted. The division into age groups is the same as in the preceding table. The figures in this table are based upon those of Table III and refer to the number of female employees on the pay rolls of the several establishments investigated during a particular pay period toward the end of 1907 or in the early part of 1908, for whom the facts covered by the table were reported.

An examination of the table shows, for example, that all of the female employees in the establishments investigated under 16 years of age were single, and that the percentage of single decreased gradually to 23 years of age, where 91 per cent were reported single, and afterwards much more rapidly until at the age group 45 to 54 only 15 per cent of the employees of that age group were single. On the other hand, the per cent of married, beginning with 0.9 at 17 years, increased year by year with a few exceptions until in the same group, 45 to 54 years, 40 per cent were found to be married. The per cent of widowed, divorced, separated, or deserted was small until the age group 30 to 34 was reached, where we find 26.4 per cent of all employees of that age.

TABLE IV.—PER CENT OF FEMALE EMPLOYEES OF EACH SPECIFIED AGE SINGLE, MARRIED, AND WIDOWED, DIVORCED, SEPARATED, AND DESERTED, FOR ALL RACES AND ALL STATES COMBINED.

Age.	Total number.	Per cent of each specified age—		
		Single.	Married.	Widowed, divorced, separated, and deserted.
Under 15 years	176	100.0	....	....
15 years	306	100.0	....	....
16 years	538	99.8	....	0.2
17 years	459	99.1	0.9	....
18 years	416	98.3	1.0	.7
19 years	261	97.7	1.5	.8
20 years	207	95.2	4.8	....
21 years	150	95.4	3.3	1.3
22 years	101	91.1	5.9	3.0
23 years	78	91.0	2.6	6.4
24 years	67	82.1	13.4	4.5
25 to 29 years	137	77.4	16.8	5.8
30 to 34 years	72	50.0	23.6	26.4
35 to 44 years	79	36.7	38.0	25.3
45 to 54 years	20	15.0	40.0	45.0
55 to 64 years	5	....	20.0	80.0
65 years and over	1	....	....	100.0
Others, reported as 21 years and over	249	73.9	14.5	11.6
Total	3,322	91.9	4.8	3.3

TABLE V.—PER CENT OF FEMALE EMPLOYEES OF EACH AGE, BY CONJUGAL CONDITION, FOR ALL STATES COMBINED.

This table shows for all States combined the per cent of the total female employees of each specified conjugal condition who were in each age group. The division into age groups is uniform with the preceding tables relating to the conjugal condition. The figures of this table are based upon those of Table III and refer to the number of female employees on the pay rolls of the several establishments during a particular pay period toward the end of 1907 or in the early part of 1908 for whom the facts covered by the table were reported.

An examination of the table shows that of the single females employed 5.8 per cent were under 15 years of age, 10 per cent were 15, and 17.6 per cent were 16 years of age, the last being the largest per cent of any age. The percentage of single women decreased from this point until at the age group 45 to 54 only 0.1 per cent of the total number was found. The ages of 6 per cent of the single women were not definitely reported. Of the married women the largest percentage was found in the age group 35 to 44, namely, 18.9 per cent. In the same age group were found the largest percentage of widowed, divorced, separated, and deserted females, namely, 18.3 per cent of the entire number reported in that class.

TABLE V.—PER CENT OF SINGLE, MARRIED, AND WIDOWED, DIVORCED, SEPARATED, AND DESERTED FEMALE EMPLOYEES OF EACH SPECIFIED AGE, FOR ALL RACES AND ALL STATES COMBINED.

Age.	Per cent of each specified age—			
	Single.	Married.	Widowed, divorced, separated, and deserted.	Total.
Under 15 years	5.8			5.3
15 years	10.0			9.2
16 years	17.6		0.9	16.2
17 years	14.9	2.5		13.8
18 years	13.4	2.5	2.8	12.5
19 years	8.3	2.5	1.8	7.9
20 years	6.5	6.3		6.2
21 years	4.7	3.1	1.8	4.5
22 years	3.0	3.8	2.8	3.0
23 years	2.3	1.3	4.6	2.4
24 years	1.8	5.7	2.8	2.0
25 to 29 years	3.5	14.5	7.3	4.1
30 to 34 years	1.2	10.7	17.4	2.2
35 to 44 years	.9	18.9	18.3	2.4
45 to 54 years	.1	5.0	8.3	.6
55 to 64 years		.6	3.7	.2
65 years and over			.9	(a)
Others, reported as 21 years and over	6.0	22.6	26.6	7.5
Total	100.0	100.0	100.0	100.0

a Less than one-tenth of 1 per cent.

TABLE VI.—CLASSIFIED EARNINGS AND AVERAGE HOURS WORKED.

This table shows, for all States combined, the number of male and female employees of specified ages employed in the glass factories covered by this investigation in a representative week and earning in that week the amount specified. For each group of employees earning the reported amount the average number of hours which were worked is also shown. The table includes, for the establishments investigated, all males at work in the furnace rooms, who were employed in any occupations in which women or children were engaged, and all female employees in other departments than the furnace rooms, for whom the facts covered by the table were reported. The males 16 years of age and over in occupations employing no women and children are omitted. The figures refer to the employees on the pay rolls in the several establishments during a particular payroll period toward the end of 1907 or in the early part of 1908. The pay-roll period selected was, as a rule, the one just prior to the investigation by the agent of the Bureau. Care was taken, however, that it should be a period when the factory was working full time and approximately the normal number of employees were at work.

An examination of the table shows, for example, that 2,362 males 16 years of age were employed and that they worked an average of 41 hours per week. Of this number 109, working 11.1 hours per week, earned less than $2. The largest number in any wage group was 549, who earned from $5 to $5.99, working an average of 44.2 hours per week. The highest hours shown for any considerable number of employees was 50.7, the time worked by 152 employees, who earned from $7 to $7.99. There were 523 females of the same age, that is, 16 years, who worked on an average 49.5 hours per week. Thirty-seven of these earned less than $2, working an average of 20.5 hours. One hundred and sixty-nine earned between $4 and $4.99, working 54.6 hours per week. The highest hours per week reported for a considerable number of employees was 56.3, the time worked by 33 employees, who earned from $6 to $6.99. The data for employees of other ages and either sex may be studied in like manner.

TABLE VI.—CLASSIFIED EARNINGS AND AVERAGE HOURS WORKED IN A REPRESENTATIVE WEEK, BY SEX AND AGE, FOR ALL STATES COMBINED.

Earnings in a representative week.	Employees under 11 years of age.				Employees 11 years of age.				Employees 12 years of age.			
	Male.		Female.		Male.		Female.		Male.		Female.	
	Number.	Average hours.	Number.	Average hours.	Number.	Average hours.	Number.	Average hours.	Number.	Average hours.	Number.	Average hours.
Under $2	5	19.0			4	15.6			9	20.1		
$2 to $2.99	6	33.7			6	27.7			15	34.2	1	27.5
$3 to $3.99					4	46.7			10	41.7	1	51.0
$4 to $4.99	2	46.1			3	46.1			11	46.2	1	58.0
$5 to $5.99	2	48.4							7	45.1		
$6 to $6.99					1	49.5			6	48.4		
Total	15	32.4			18	33.5			58	38.4	3	45.5

	Employees 13 years of age.				Employees 14 years of age.				Employees 15 years of age.			
Under $2	19	14.6	1	35.0	131	17.1	26	29.3	97	14.3	24	26.5
$2 to $2.99	33	33.6	3	43.0	147	29.3	24	41.4	144	29.4	52	39.1
$3 to $3.99	41	42.1	5	54.8	224	39.4	52	54.2	276	36.1	89	51.9
$4 to $4.99	36	45.2	2	54.0	403	45.5	44	56.8	494	43.4	90	55.6
$5 to $5.99	19	46.5	1	58.0	329	46.4	12	56.7	473	46.1	29	56.0
$6 to $6.99	22	47.4			216	48.6	2	58.0	325	48.6	13	57.9
$7 to $7.99					22	48.3	1	40.5	40	51.4	5	62.8
$8 to $8.99	1	49.5			4	49.2			17	49.6	1	56.2
$9 to $9.99					2	42.9			8	47.8	2	58.0
$10 to $10.99									1	49.5		
Total	171	39.3	12	50.3	1,478	41.1	161	49.1	1,875	41.6	305	49.7

TABLE VI.—CLASSIFIED EARNINGS AND AVERAGE HOURS WORKED IN A REPRESENTATIVE WEEK, BY SEX AND AGE, FOR ALL STATES COMBINED—Continued.

Earnings in a representative week.	Employees 16 years of age.				Employees 17 years of age.				Employees 18 years of age.			
	Male.		Female.		Male.		Female.		Male.		Female.	
	Number.	Average hours.	Number.	Average hours.	Number.	Average hours.	Number.	Average hours.	Number.	Average hours.	Number.	Average hours.
Under $2	109	11.1	37	20.5	80	9.8	24	19.8	56	9.8	15	18.9
$2 to $2.99	149	25.5	53	36.9	92	24.7	50	35.4	61	24.4	31	33.9
$3 to $3.99	299	34.0	129	49.5	169	31.6	80	48.3	118	31.1	77	46.0
$4 to $4.99	507	41.5	169	54.6	287	40.2	154	53.8	206	39.1	113	52.9
$5 to $5.99	549	44.2	85	55.3	429	43.4	88	55.6	279	43.2	81	55.0
$6 to $6.99	499	47.6	33	56.3	458	46.9	33	56.6	373	47.0	61	56.4
$7 to $7.99	152	50.7	7	61.2	163	49.6	14	56.6	189	48.9	19	58.5
$8 to $8.99	38	49.8	3	51.1	47	58.9	2	56.1	61	50.1	8	57.3
$9 to $9.99	44	49.7	4	58.7	44	49.6	3	60.6	57	50.7	3	47.9
$10 to $10.99	8	50.9	2	65.8	8	53.0	2	56.5	18	51.9	2	57.1
$11 to $11.99	4	52.7	......	....	4	54.0	......	....	3	52.3	......	....
$12 to $12.99	3	50.2	......	....	6	48.8	......	....	5	51.9	1	58.0
$13 to $13.99	1	50.0	1	58.0	......	....	......	....	......	....	......	....
Total	2,362	41.0	523	49.5	1,787	41.4	450	49.7	1,426	42.0	411	50.2
	Employees 19 years of age.				Employees 20 years of age.				Employees 21 years of age.			
Under $2	40	9.2	10	17.5	30	10.0	8	12.5	23	10.2	4	18.6
$2 to $2.99	35	22.8	19	33.8	23	26.3	9	30.3	17	21.8	9	33.1
$3 to $3.99	59	28.8	37	45.5	35	27.3	22	42.2	16	26.1	26	45.0
$4 to $4.99	99	36.9	66	52.3	58	39.8	55	52.8	35	36.6	27	51.5
$5 to $5.99	164	42.9	60	55.8	104	42.2	44	54.4	50	42.6	29	54.9
$6 to $6.99	221	46.8	34	55.8	149	46.4	37	56.1	81	45.4	27	56.4
$7 to $7.99	121	48.3	17	57.3	114	48.4	10	56.3	73	48.1	14	56.6
$8 to $8.99	31	50.1	6	53.5	40	51.7	9	53.3	11	51.0	1	58.0
$9 to $9.99	47	50.2	5	56.5	33	49.5	7	54.8	17	51.6	4	61.4
$10 to $10.99	18	75.3	5	59.4	5	51.2	1	60.0	9	50.2	1	56.3
$11 to $11.99	......	....	1	58.7	5	57.1	......	....	1	75.0	3	56.0
$12 to $12.99	5	47.2	......	....	1	50.3	1	58.0	4	46.3	1	55.0
Total	840	42.0	260	50.5	597	42.4	203	50.3	337	40.9	146	50.8
	Employees 22 years of age.				Employees 23 years of age.				Employees 24 years of age.			
Under $2	6	9.5	3	16.8	7	8.0	1	25.0	5	7.3	1	19.0
$2 to $2.99	6	19.4	3	32.4	5	15.1	5	31.2	3	15.4	4	26.9
$3 to $3.99	17	29.8	15	44.2	7	29.1	9	38.9	6	27.8	5	47.4
$4 to $4.99	16	37.2	23	53.4	11	33.6	18	52.0	8	33.7	15	50.4
$5 to $5.99	37	41.4	26	55.7	14	40.9	16	53.3	15	41.4	11	53.6
$6 to $6.99	55	47.7	13	56.8	26	44.1	11	56.0	20	43.7	13	53.3
$7 to $7.99	59	47.2	7	56.3	33	47.3	7	58.1	28	47.7	9	54.0
$8 to $8.99	11	51.6	3	53.5	14	51.7	7	56.2	8	47.9	2	55.5
$9 to $9.99	14	49.4	3	56.7	21	49.3	1	58.0	13	49.6	4	54.6
$10 to $10.99	9	52.0	2	57.1	3	51.2	2	58.0	5	51.8	1	56.3
$11 to $11.99	3	50.0	......	....	1	51.0	......	....	......	....	1	55.3
$12 to $12.99	1	42.5	......	....	1	58.8	......	....	......	....	......	....
Total	234	43.3	98	51.6	143	42.0	77	50.8	111	41.8	66	50.4

TABLE VI.—CLASSIFIED EARNINGS AND AVERAGE HOURS WORKED IN A REPRESENTATIVE WEEK, BY SEX AND AGE, FOR ALL STATES COMBINED—Concluded.

Earnings in a representative week.	Employees 25 to 29 years of age.				Employees 30 to 34 years of age.				Employees 35 to 44 years of age.			
	Male.		Female.		Male.		Female.		Male.		Female.	
	Number.	Average hours.	Number.	Average hours.	Number.	Average hours.	Number.	Average hours.	Number.	Average hours.	Number.	Average hours.
Under $2	12	8.5	3	20.6	5	9.4	2	11.8	3	9.9	2	11.7
$2 to $2.99	7	24.0	10	31.1	3	20.5	8	29.3	4	18.2	3	33.0
$3 to $3.99	14	22.5	12	45.8	7	25.6	8	41.4	4	25.5	11	45.6
$4 to $4.99	18	33.5	30	51.2	6	35.1	13	52.0	12	37.9	20	53.0
$5 to $5.99	40	39.6	20	51.6	9	37.2	18	51.3	20	41.4	14	50.7
$6 to $6.99	55	44.3	20	54.8	20	42.4	8	54.2	21	45.9	9	55.4
$7 to $7.99	100	47.5	12	53.0	50	46.9	2	58.3	41	46.5	2	57.0
$8 to $8.99	27	49.3	9	56.6	17	50.5	1	49.8	18	49.2	3	54.7
$9 to $9.99	30	49.1	7	58.5	13	50.0			22	49.9	2	56.5
$10 to $10.99	16	51.1	1	55.0	11	53.1	1	34.0	5	51.8	2	56.5
$11 to $11.99	1	48.8	2	48.5								
$12 to $12.99	2	54.9	6	54.5			1	58.0	2	50.3		
$13 to $13.99												
$14 to $14.99												
$15 to $19.99			3	56.7					1	86.0	1	58.0
Total	322	42.7	135	50.3	141	43.4	62	46.5	153	44.4	69	50.1

	Employees 45 to 54 years of age.				Employees 55 to 64 years of age.				Employees 65 years of age and over.			
Under $2	2	13.2	1	0.3								
$2 to $2.99	3	19.0	2	34.8	2	19.2						
$3 to $3.99	6	28.2	1	40.0	1	30.4	1	50.0	1	27.0		
$4 to $4.99	5	33.5	7	54.0	4	36.6					1	55.5
$5 to $5.99	4	40.2	3	50.7	2	43.2	2	53.5				
$6 to $6.99	16	45.4	2	55.3	10	41.8						
$7 to $7.99	30	47.8	2	58.5	15	46.4			7	45.0		
$8 to $8.99	14	47.0			8	48.8			3	43.9		
$9 to $9.99	11	49.6			8	49.2	1	58.5				
$10 to $10.99	2	51.8	1	58.0								
$11 to $11.99			1	58.0								
$12 to $12.99												
$13 to $13.99												
$14 to $14.99	1	50.3										
Total	94	43.6	20	49.2	50	44.0	4	53.9	11	43.3	1	55.5

Earnings in a representative week.	Other employees reported as 21 years and over.				Total employees.			
	Male.		Female.		Male.		Female.	
Under $2	11	7.7	9	19.1	654	12.4	171	21.5
$2 to $2.99	11	20.5	13	35.9	772	26.8	299	35.8
$3 to $3.99	18	28.1	28	43.6	1,332	34.2	608	48.1
$4 to $4.99	23	35.5	56	47.8	2,244	41.7	904	53.3
$5 to $5.99	37	39.7	48	53.3	2,583	44.2	587	54.7
$6 to $6.99	44	44.9	45	57.5	2,618	47.1	361	56.3
$7 to $7.99	55	47.8	22	54.9	1,292	48.6	150	56.6
$8 to $8.99	13	50.6	12	56.1	383	51.1	67	55.2
$9 to $9.99	18	50.7	10	55.1	402	49.9	56	56.5
$10 to $10.99	13	50.3	1	53.0	131	54.8	24	57.1
$11 to $11.99					22	54.3	8	54.6
$12 to $12.99	1	80.0	1	58.0	31	50.5	11	55.8
$13 to $13.99			2	50.3	1	50.0	3	52.8
$14 to $14.99					1	50.3		
$15 to $15.99			1	54.0	1		5	56.4
$16 to $16.99			1	53.0			1	53.0
Total	244	41.0	249	49.9	12,467	41.6	3,255	49.9

TABLE VII.—NUMBER AND PER CENT OF EMPLOYEES EARNING EACH CLASSIFIED AMOUNT.

This table, which is based on Table VI, shows for all States combined the number and per cent of male and female employees of specified ages earning in a representative week the classified amounts. The table includes for the establishments investigated all males employed in the furnace rooms who worked in occupations where any women or children were also engaged, and all females in departments other than the furnace room for whom the facts covered by the table were reported. Males 16 years of age and over in occupations employing no women or children are omitted.

The figures refer to the employees on the pay rolls of the several establishments during a particular pay period toward the end of 1907 or in the early part of 1908. The pay roll period selected was, as a rule, the one just prior to the investigation by the agent of the Bureau. Care was taken, however, that it should be a period when the factory was working full time and approximately the normal number of employees were at work. It should be borne in mind that the earnings of the individual employees are for the number of hours actually worked in each case during the pay period selected and not necessarily for the full running time of the establishment; in many cases it was considerably less than full time. The number of hours worked for each wage and age group may be seen by reference to the preceding Table VI.

Reference to the table shows, for example, that the male employees 17 years of age numbered 1,787, and that of this number 80, or 4.5 per cent, earned under $2. The greatest number, 458, or 25.6 per cent, earned between $6 and $6.99. The female employees at the same age numbered 450, of which number 24, or 5.3 per cent, earned under $2, the greatest number, 154, or 34.2 per cent, earning between $4 and $4.99. The figures in regard to each age and sex group may be read in like manner.

TABLE VII.—NUMBER AND PER CENT OF EMPLOYEES OF EACH AGE SEX, FOR ALL

NUMBER.

Marginal number.	Sex and classified weekly earnings.	Under 11 years.	11 years.	12 years.	13 years.	14 years.	15 years.	16 years.	17 years.	18 years.	19 years.
	MALES.										
1	Under $2	5	4	9	19	131	97	109	80	56	40
2	$2 to $2.99	6	6	15	33	147	144	149	92	61	35
3	$3 to $3.99	......	4	10	41	224	276	299	169	118	59
4	$4 to $4.99	2	3	11	36	403	494	507	287	206	99
5	$5 to $5.99	2	......	7	19	329	473	549	429	279	164
6	$6 to $6.99	......	1	6	22	216	325	499	458	373	221
7	$7 to $7.99	......	......	......	......	22	40	152	163	189	121
8	$8 to $8.99	......	......	......	1	4	17	38	47	61	31
9	$9 to $9.99	......	......	......	......	2	8	44	44	57	47
10	$10 to $10.99	......	......	......	......	......	1	8	8	18	18
11	$11 to $11.99	......	......	......	......	......	......	4	4	3	......
12	$12 and over	......	......	......	......	......	......	4	6	5	5
13	Total	15	18	58	171	1,478	1,875	2,362	1,787	1,426	840
	FEMALES.										
14	Under $2	......	......	......	1	26	24	37	24	15	10
15	$2 to $2.99	......	......	1	3	24	52	53	50	31	19
16	$3 to $3.99	......	......	1	5	52	89	129	80	77	37
17	$4 to $4.99	......	......	1	2	44	90	169	154	113	66
18	$5 to $5.99	......	......	......	1	12	29	85	88	81	60
19	$6 to $6.99	......	......	......	......	2	13	33	33	61	34
20	$7 to $7.99	......	......	......	......	1	5	7	14	19	17
21	$8 to $8.99	......	......	......	......	......	1	3	2	8	6
22	$9 to $9.99	......	......	......	......	......	2	4	3	3	5
23	$10 to $10.99	......	......	......	......	......	......	2	2	2	5
24	$11 to $11.99	......	......	......	......	......	......	......	......	......	1
25	$12 and over	......	......	......	......	......	......	1	......	1	......
26	Total	......	......	3	12	161	305	523	450	411	260

PER CENT.

Marginal number.	Sex and classified weekly earnings.	Under 11 years.	11 years.	12 years.	13 years.	14 years.	15 years.	16 years.	17 years.	18 years.	19 years.
	MALES.										
1	Under $2	33.4	22.2	15.5	11.1	8.9	5.2	4.6	4.5	3.9	4.8
2	$2 to $2.99	40.0	33.3	25.9	19.3	9.9	7.7	6.3	5.2	4.3	4.2
3	$3 to $3.99	......	22.2	17.2	24.0	15.1	14.7	12.7	9.5	8.3	7.0
4	$4 to $4.99	13.3	16.7	19.0	21.0	27.3	26.4	21.5	16.1	14.4	11.8
5	$5 to $5.99	13.3	......	12.1	11.1	22.3	25.2	23.2	24.0	19.6	19.5
6	$6 to $6.99	......	5.6	10.3	12.9	14.6	17.3	21.1	25.6	26.2	26.3
7	$7 to $7.99	......	......	......	......	1.5	2.1	6.4	9.1	13.2	14.4
8	$8 to $8.99	......	......	......	.6	.3	.9	1.6	2.6	4.3	3.7
9	$9 to $9.99	......	......	......	......	.1	.4	1.9	2.5	4.0	5.6
10	$10 to $10.99	......	......	......	......	......	.1	.3	.4	1.3	2.1
11	$11 to $11.99	......	......	......	......	......	......	.2	.2	.2	......
12	$12 and over	......	......	......	......	......	......	.2	.3	.3	.6
13	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	FEMALES.										
14	Under $2	......	......	......	8.3	16.2	7.9	7.1	5.3	3.7	3.9
15	$2 to $2.99	......	......	33.3	25.0	14.9	17.0	10.1	11.1	7.5	7.3
16	$3 to $3.99	......	......	33.3	41.7	32.3	29.2	24.7	17.8	18.7	14.2
17	$4 to $4.99	......	......	33.4	16.7	27.3	29.5	32.3	34.2	27.5	25.4
18	$5 to $5.99	......	......	......	8.3	7.5	9.5	16.2	19.5	19.7	23.1
19	$6 to $6.99	......	......	......	......	1.2	4.3	6.3	7.3	14.8	13.1
20	$7 to $7.99	......	......	......	......	.6	1.6	1.3	3.1	4.6	6.5
21	$8 to $8.99	......	......	......	......	......	.3	.6	.5	2.0	2.3
22	$9 to $9.99	......	......	......	......	......	.7	.8	.7	.7	1.9
23	$10 to $10.99	......	......	......	......	......	......	.4	.5	.5	1.9
24	$11 to $11.99	......	......	......	......	......	......	......	......	......	.4
25	$12 and over	......	......	......	......	......	......	.2	......	.3	......
26	Total	......	......	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

EARNING CLASSIFIED AMOUNTS IN A REPRESENTATIVE WEEK, BY STATES COMBINED.

NUMBER.

20 years.	21 years.	22 years.	23 years.	24 years	25 to 29 years.	30 to 34 years.	35 to 44 years.	45 to 54 years.	55 to 64 years.	65 years and over.	Others, reported as 21 years and over.	Total.	Marginal number.
30	23	6	7	5	12	5	3	2	......	......	11	654	1
23	17	6	5	3	7	3	4	3	2	......	11	772	2
35	16	17	7	6	14	7	4	6	1	1	18	1,332	3
58	35	16	11	8	18	6	12	5	4	......	23	2,244	4
104	50	37	14	15	40	9	20	4	2	......	37	2,583	5
149	81	55	26	20	55	20	21	16	10	......	44	2,618	6
114	73	59	33	28	100	50	41	30	15	7	55	1,292	7
40	11	11	14	8	27	17	18	14	8	3	13	383	8
33	17	14	21	13	30	13	22	11	8	......	18	402	9
5	9	9	3	5	16	11	5	2	......	......	13	131	10
5	1	3	1	......	1	......	......	......	......	......	......	22	11
1	4	1	1	......	2	......	3	1	......	......	1	34	12
597	337	234	143	111	322	141	153	94	50	11	244	12,467	13
8	4	3	1	1	3	2	2	1	......	......	9	171	14
9	9	3	5	4	10	8	3	2	......	......	13	299	15
22	26	15	9	5	12	8	11	1	1	......	28	608	16
55	27	23	18	15	30	13	20	7	......	1	56	904	17
44	29	26	16	11	20	18	14	3	2	......	48	587	18
37	27	13	11	13	20	8	9	2	......	......	45	361	19
10	14	7	7	9	12	2	2	2	......	......	22	150	20
9	1	3	7	2	9	1	3	......	......	......	12	67	21
7	4	3	1	4	7	......	2	......	1	......	10	56	22
1	1	2	2	1	1	1	2	1	......	......	1	24	23
......	3	......	......	1	2	......	......	1	......	......	......	8	24
1	1	......	......	......	9	1	1	......	......	......	5	20	25
203	146	98	77	66	135	62	69	20	4	1	249	3,255	26

PER CENT.

20 years.	21 years.	22 years.	23 years.	24 years	25 to 29 years.	30 to 34 years.	35 to 44 years.	45 to 54 years.	55 to 64 years.	65 years and over.	Others, reported as 21 years and over.	Total.	Marginal number.
5.0	6.8	2.6	4.9	4.5	3.7	3.5	2.0	2.1	......	......	4.5	5.2	1
3.9	5.0	2.6	3.5	2.7	2.2	2.1	2.6	3.2	4.0	......	4.5	6.2	2
5.9	4.8	7.3	4.9	5.4	4.3	5.0	2.6	6.4	2.0	9.1	7.4	10.7	3
9.7	10.4	6.8	7.7	7.2	5.6	4.2	7.8	5.3	8.0	......	9.4	18.0	4
17.4	14.8	15.8	9.8	13.5	12.4	6.4	13.1	4.3	4.0	......	15.2	20.7	5
25.0	24.0	23.5	18.2	18.0	17.1	14.2	13.7	17.0	20.0	......	18.0	21.0	6
19.1	21.7	25.2	23.0	25.3	31.1	35.5	26.8	31.9	30.0	63.6	22.6	10.4	7
6.7	3.3	4.7	9.8	7.2	8.4	12.1	11.7	14.9	16.0	27.3	5.3	3.1	8
5.5	5.0	6.0	14.7	11.7	9.3	9.2	14.4	11.7	16.0	......	7.4	3.2	9
.8	2.7	3.8	2.1	4.5	5.0	7.8	3.3	2.1	......	......	5.3	1.0	10
.8	.3	1.3	.7	......	.3	......	......	......	......	......	......	.2	11
.2	1.2	.4	.7	......	.6	......	2.0	1.1	......	......	.4	.3	12
100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	13
4.0	2.7	3.1	1.3	1.5	2.2	3.2	2.9	5.0	......	......	3.6	5.3	14
4.4	6.2	3.1	6.5	6.1	7.4	12.9	4.4	10.0	......	......	5.2	9.2	15
10.8	17.8	15.3	11.7	7.6	8.9	12.9	15.9	5.0	25.0	......	11.3	18.7	16
27.1	18.5	23.5	23.3	22.7	22.2	21.0	29.0	35.0	......	100.0	22.5	27.8	17
21.7	19.9	26.5	20.8	16.7	14.8	29.1	20.3	15.0	50.0	......	19.3	18.0	18
18.2	18.5	13.2	14.3	19.7	14.8	12.9	13.0	10.0	......	......	18.1	11.1	19
4.9	9.6	7.1	9.1	13.6	8.9	3.2	2.9	10.0	......	......	8.8	4.6	20
4.4	.7	3.1	9.1	3.0	6.7	1.6	4.4	......	......	......	4.8	2.1	21
3.5	2.7	3.1	1.3	6.1	5.2	......	2.9	......	25.0	......	4.0	1.7	22
.5	.7	2.0	2.6	1.5	.7	1.6	2.9	5.0	......	......	.4	.7	23
......	2.0	......	......	1.5	1.5	......	1.4	5.0	......	......	......	.2	24
.5	.7	......	......	......	6.7	1.6	......	......	......	......	2.0	.6	25
100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	26

TABLE VIII.—PER CENT OF EMPLOYEES EARNING LESS THAN SPECIFIED AMOUNTS.

This table shows for all States combined the number of male and female employees in specified age groups employed in the glass factories covered by this investigation in a representative week, and the per cent earning in that week less than $4, less than $6, less than $8, and less than $10. The relative importance of the number of male and of female employees in each age group is also shown. The table includes for the establishments investigated all males employed in the furnace rooms and working in occupations in which any women or children were also engaged and all females in departments other than the furnace room for whom the facts covered by the table were reported. Males 16 years of age and over in occupations employing no women or children are omitted.

The figures refer to the numbers on the pay rolls of the several establishments during a particular pay period toward the end of 1907 or in the early part of 1908. The pay-roll period selected was, as a rule, the one just prior to the investigation by the agent of the Bureau. Care was taken, however, that it should be a period when the factory was working full time and approximately the normal number of employees were at work.

An examination of the table shows, for example, that of the 462 male employees under 14 years of age constituting 2.1 per cent of all males in competitive occupations, 58 per cent earned less than $4, 88.5 per cent earned less than $6, 99.6 per cent earned less than $8, and 100 per cent earned less than $10. Of the 15 females of the same age constituting 0.5 per cent of all females, 73.3 per cent earned under $4, and all of them earned under $6. The figures for the remaining age groups may be read in like manner.

TABLE VIII.—PER CENT OF EMPLOYEES IN SPECIFIED AGE GROUPS EARNING LESS THAN SPECIFIED AMOUNTS IN A REPRESENTATIVE WEEK, BY SEX, FOR ALL STATES COMBINED.

Age group.	Males.						Females.					
	Employees.		Per cent of total in age group earning—				Employees.		Per cent of total in age group earning—			
	Number.	Per cent in age group.	Under $4.	Under $6.	Under $8.	Under $10.	Number.	Per cent in age group.	Under $4.	Under $6.	Under $8.	Under $10.
Under 14 years	262	2.1	58.0	88.5	99.6	100.0	15	0.5	73.3	100.0	100.0	100.0
14 and 15 years	3,353	26.9	30.4	81.1	99.0	99.9	466	14.3	57.3	94.8	99.4	100.0
16 and 17 years	4,149	33.3	21.6	64.4	95.0	99.2	973	29.9	38.3	89.3	98.3	99.5
18 to 20 years	2,863	23.0	16.0	47.7	88.5	97.9	874	26.8	26.1	74.0	94.4	98.7
21 years and over	1,840	14.7	12.6	32.5	78.1	95.0	927	28.5	21.5	64.3	88.6	96.1
Total	12,467	100.0	22.1	60.8	92.2	98.5	3,255	100.0	33.1	78.9	94.6	98.4

TABLE IX.—HOURS AND EARNINGS IN "BOYS' OCCUPATIONS."

This table shows, by States, the average earnings per week, the average hours per week, and the average earnings per hour for persons in boys' occupations employed in the glass factories covered by this investigation in a representative week. By the term "boys' occupations" is meant all occupations which are largely filled by boys. A considerable number of men of all ages, however, are found in these occupations, and in a few instances women also are employed in them. Women were found in these occupations in factories in two States covered by this investigation, namely, Illinois, and in the group comprising Wisconsin, Missouri, and Kansas. In this table the males are grouped as 21 years of age and over, 16 to 20 years of age, and under 16 years of age. The females are shown as 16 years of age and over.

The figures refer to the employees on the pay rolls of the several establishments during a particular pay-roll period toward the end of 1907 or in the early part of 1908. The pay-roll period selected was, as a rule, the one just prior to the investigation by the agent of the Bureau. Care was taken, however, that it should be a period when the factory was working full time and approximately the normal number of employees were at work.

The table is presented in two sections; the first section, A, including factories in which bottles and jars are manufactured, and the second section, B, including those establishments engaged in the manufacture of tableware, shades, etc.

Reference to the columns of section A relating to New York, for example, shows that of the 309 persons employed in boys' occupations 59 were 21 years of age and over, 221 from 16 to 20 years of age, and 29 under 16 years of age. Of the 221 males 16 to 20 years of age, 75 were native born of native parents, 74 of these being white and 1 colored. Fifty-six were of native birth but of foreign parentage, and 90 were foreign born. The 74 white persons of native birth, and native parentage earned an average of $5.09 during the pay-roll period selected, having worked an average of 41.6 hours, the average earnings per hour being $0.122. Of the native-born persons of foreign parentage, in the same age group, 27 were of German parentage. These persons, working an average of 40.7 hours, earned $5.09 in the pay-roll period selected, this being an equivalent of $0.125 per hour. There were 12 persons of Irish parentage working 43.6 hours and earning $5.27 per week, or $0.121 per hour. Of the 90 foreign-born persons of the same age group, 59 were Italian, who worked 46.7 hours and earned $6.21 per week, or an average of $0.133 per hour. Twenty were Slavs, who earned $5.56, having worked 47.6 hours, the hourly rate being $0.117. The other races shown in this age group are represented by small numbers of persons, and the fact should be borne in mind that a fair comparison can not be made between groups so represented. The figures, therefore, for many of the classes of this table where the number reported were few are not of much value for purposes of comparison. The data for the different age groups for the several States and for each section of the table may be studied in the manner indicated above.

TABLE IX.—AVERAGE HOURS WORKED AND AVERAGE WEEKLY AND HOURLY EARNINGS, IN A REPRESENTATIVE WEEK, OF EMPLOYEES IN "BOYS' OCCUPATIONS," BY AGE GROUPS, NATIVITY, RACE, AND STATE.

A.—BOTTLES AND JARS.

Age, sex, and race.	New York.				New Jersey.				Pennsylvania.			
	Number of employees.	Average earnings per week.	Average hours per week.	Average earnings per hour.	Number of employees.	Average earnings per week.	Average hours per week.	Average earnings per hour.	Number of employees.	Average earnings per week.	Average hours per week.	Average earnings per hour.
MALES 21 YEARS AND OVER.												
Native-born of native parents:												
White	17	$5.20	39.8	$0.131	167	$6.11	43.5	$0.141	29	$6.60	44.1	$0.150
Colored	1	9.00	53.0	.170	21	5.17	38.1	.136	10	6.78	46.4	.146
Native-born of foreign parents:												
English	1	9.00	53.0	.170	2	7.40	53.7	.138	1	8.18	48.8	.168
German	5	6.93	44.1	.157	11	5.96	46.5	.128	2	8.25	50.2	.165
Irish	1	9.00	53.0	.170	4	6.60	49.4	.134	8	6.84	46.6	.147
Italian	......	......	......	......	1	5.23	37.0	.141	......	......	......	......
Slav	3	4.33	34.3	.126	......	......	......	......	2	7.75	47.9	.161
Other races	......	......	......	......	......	......	......	......	4	9.09	47.1	.193
Total	10	6.56	42.9	.153	18	6.22	47.4	.131	17	7.72	47.4	.163
Foreign-born:												
English	......	......	......	......	2	6.79	45.1	.151	1	9.00	54.0	.167
French	......	......	......	......	......	......	......	......	4	7.92	48.9	.162
German	......	......	......	......	......	......	......	......	2	6.38	35.3	.181
Greek	1	6.00	50.3	.119	27	5.39	50.1	.108	......	......	......	......
Irish	1	5.00	42.5	.118	2	5.86	43.9	.134	......	......	......	......
Italian	19	7.39	47.5	.156	54	5.53	45.6	.121	34	6.81	43.3	.157
Slav	8	5.70	45.2	.126	9	3.33	30.8	.108	9	8.19	50.6	.162
Other races	2	8.33	42.6	.196	......	......	......	......	2	5.67	34.9	.163
Total	31	6.90	46.5	.148	94	5.31	45.4	.117	52	7.11	44.6	.160
Total males 21 years and over.	59	6.39	44.1	.145	300	5.80	43.9	.132	108	7.04	45.1	.156
MALES 16 TO 20 YEARS.												
Native-born of native parents:												
White	74	5.09	41.6	.122	658	5.37	45.8	.117	377	5.89	44.4	.133
Colored	1	9.00	53.0	.170	54	3.84	33.4	.115	24	5.24	40.4	.130
Native-born of foreign parents:												
English	3	5.45	43.3	.126	7	5.39	47.0	.115	21	5.64	45.1	.125
French	1	5.01	41.6	.120	5	5.97	47.8	.125	20	5.98	42.9	.139
German	27	5.09	40.7	.125	49	5.51	45.8	.120	55	5.80	44.9	.129
Irish	12	5.27	43.6	.121	17	5.43	46.2	.118	56	5.75	46.5	.124
Italian	5	6.00	47.6	.126	19	5.01	45.8	.109	14	4.98	41.6	.120
Slav	7	4.97	41.3	.120	4	5.70	49.8	.114	38	6.32	46.5	.136
Other races	1	9.00	53.0	.170	8	4.89	40.4	.121	31	5.72	42.3	.135
Total	56	5.28	42.4	.125	109	5.38	45.8	.118	235	5.81	44.8	.130

TABLE IX.—AVERAGE HOURS WORKED AND AVERAGE WEEKLY AND HOURLY EARNINGS, IN A REPRESENTATIVE WEEK, OF EMPLOYEES IN "BOYS' OCCUPATIONS," BY AGE GROUPS, NATIVITY, RACE, AND STATE—Continued.

A.—BOTTLES AND JARS—Continued.

Age, sex, and race.	New York.				New Jersey.				Pennsylvania.			
	Number of employees.	Average earnings per week.	Average hours per week.	Average earnings per hour.	Number of employees.	Average earnings per week.	Average hours per week.	Average earnings per hour.	Number of employees.	Average earnings per week.	Average hours per week.	Average earnings per hour.
MALES 16 TO 20 YEARS—Concluded.												
Foreign-born:												
English	2	$5.19	39.4	$0.132	......	......	......	......	4	$7.00	46.2	$0.152
French	......	......	......	......	......	......	......	......	9	7.58	46.2	.169
German	4	4.06	35.8	.113	6	$6.08	49.4	$0.123	3	6.54	47.4	.138
Greek	3	5.67	50.3	.113	11	5.03	46.5	.108	2	6.35	38.7	.164
Irish	......	......	......	......	1	6.00	49.0	.122	1	6.98	56.8	.123
Italian	59	6.21	46.7	.133	119	4.72	42.3	.112	128	5.73	43.3	.132
Slav	20	5.56	47.6	.117	10	4.31	38.5	.112	49	6.77	46.1	.147
Other races	2	6.00	50.3	.119	3	5.22	46.0	.113	9	6.35	42.0	.151
Total	90	5.92	46.4	.128	150	4.79	42.7	.112	205	6.14	44.2	.139
Total males 16 to 20 years	221	5.49	43.8	.125	971	6.54	56.2	.116	841	5.91	44.4	.133
MALES UNDER 16 YEARS.												
Native-born of native parents:												
White	10	4.05	41.5	.098	271	4.70	46.3	.101	297	4.84	43.7	.111
Colored	......	......	......	......	14	4.23	43.5	.097	6	4.25	38.2	.111
Native-born of foreign parents:												
English	......	......	......	......	8	4.68	48.0	.097	22	5.03	47.8	.105
French	1	4.36	42.9	.102	3	4.53	41.8	.108	24	5.54	45.1	.123
German	4	2.58	26.2	.098	21	4.74	48.9	.097	78	4.96	44.2	.112
Irish	......	......	......	......	11	4.49	47.5	.095	58	4.37	46.7	.094
Italian	2	3.83	39.8	.096	10	3.85	45.3	.085	23	5.47	46.6	.117
Slav	9	4.74	45.9	.103	4	4.27	47.3	.090	79	5.21	44.6	.117
Other races	......	......	......	......	1	2.70	36.3	.074	24	4.84	41.2	.117
Total	16	4.09	40.0	.102	58	4.45	47.2	.094	308	4.99	45.0	.111
Foreign-born:												
English	1	6.00	50.3	.119	2	4.76	37.7	.126	6	4.93	45.0	.109
French	......	......	......	......	......	......	......	......	5	5.48	42.7	.128
German	1	5.00	50.3	.099	2	4.57	47.7	.096	9	4.79	44.6	.107
Greek	......	......	......	......	......	......	......	......	1	3.60	50.3	.072
Irish	......	......	......	......	......	......	......	......	1	4.50	47.8	.094
Italian	1	4.50	44.3	.102	43	3.70	38.1	.097	66	4.84	46.0	.105
Slav	......	......	......	......	3	4.75	48.3	.098	43	5.79	44.9	.129
Other races	......	......	......	......	1	4.13	46.4	.089	8	5.53	48.0	.115
Total	3	5.17	48.3	.107	51	3.84	39.3	.098	139	5.19	45.6	.114
Total males under 16 years	29	4.17	41.4	.101	394	4.54	45.4	.100	750	4.96	44.6	.111
Total males, all ages	309	5.54	43.6	.127	1,665	5.93	51.4	.115	1,699	5.56	44.5	.125

TABLE IX.—AVERAGE HOURS WORKED AND AVERAGE WEEKLY AND HOURLY EARNINGS, IN A REPRESENTATIVE WEEK, OF EMPLOYEES IN "BOYS' OCCUPATIONS," BY AGE GROUPS, NATIVITY, RACE, AND STATE—Continued.

A.—BOTTLES AND JARS—Continued.

Age, sex, and race.	Ohio.				Indiana.				Illinois.			
	Number of employees.	Average earnings per week.	Average hours per week.	Average earnings per hour.	Number of employees.	Average earnings per week.	Average hours per week.	Average earnings per hour.	Number of employees.	Average earnings per week.	Average hours per week.	Average earnings per hour.
MALES 21 YEARS AND OVER.												
Native-born of native parents:												
White	51	$7.17	39.8	$0.180	247	$6.59	39.5	$0.167	98	$6.15	40.2	$0.153
Colored	7	5.61	34.7	.162	23	5.86	34.6	.170	106	6.83	41.5	.165
Native-born of foreign parents:												
English	1	8.80	42.5	.207	5	6.75	40.8	.165	1	7.50	46.4	.162
French	......	......	......	......	1	9.63	49.0	.197	2	5.75	34.0	.169
German	5	9.10	48.7	.187	10	6.16	37.4	.165	22	6.72	42.6	.158
Irish	5	6.96	45.2	.154	11	5.60	38.1	.147	7	6.62	42.1	.157
Italian	......	......	......	......	1	9.63	49.0	.197	1	7.50	46.4	.162
Slav	......	......	......	......	......	......	......	......	1	7.50	45.0	.167
Other races	......	......	......	......	......	......	......	......	2	8.19	49.2	.166
Total	11	8.10	46.6	.174	28	6.29	39.1	.161	36	6.79	42.7	.159
Foreign-born:												
English	......	......	......	......	8	7.59	43.5	.175	3	8.00	43.8	.183
French	......	......	......	......	......	......	......	......	1	7.03	47.5	.148
German	1	6.00	42.5	.141	2	7.94	45.8	.174	5	5.89	36.7	.160
Greek	7	7.00	45.8	.153	1	9.00	50.3	.179	83	6.44	41.5	.155
Irish	......	......	......	......	4	7.56	42.7	.177	1	8.13	53.5	.152
Italian	8	9.64	50.6	.190	1	10.00	42.5	.235	147	7.40	45.2	.164
Slav	63	9.12	48.0	.190	1	8.10	50.3	.161	25	6.87	42.7	.161
Other races	2	6.25	42.5	.147	10	7.10	41.7	.170	12	5.41	38.8	.139
Total	81	8.88	47.8	.186	27	7.59	43.3	.175	277	6.96	43.5	.160
Total males 21 years and over.	150	8.09	44.4	.182	325	6.60	39.4	.167	517	6.77	42.4	.160
MALES 16 TO 20 YEARS.												
Native-born of native parents:												
White	334	5.97	42.2	.141	798	5.81	40.1	.145	372	5.61	42.8	.131
Colored	53	5.26	37.1	.142	74	6.34	41.7	.152	82	6.05	41.2	.147
Native-born of foreign parents:												
English	7	4.71	39.8	.118	14	5.13	38.7	.132	21	5.25	42.3	.124
French	5	5.82	45.9	.127	4	6.08	43.2	.141	1	7.50	47.5	.158
German	97	5.70	42.7	.133	25	5.36	37.2	.144	71	5.44	43.7	.125
Irish	10	6.37	43.9	.145	21	4.09	32.1	.127	7	5.43	43.1	.126
Italian	2	5.63	38.3	.147	1	.70	4.8	.146	2	5.92	47.1	.126
Slav	4	6.01	44.8	.134	2	8.10	42.4	.191	23	5.77	45.0	.128
Other races	8	5.63	42.4	.133	8	5.78	42.5	.136	12	5.23	40.9	.128
Total	133	5.71	42.7	.134	75	5.06	36.7	.138	137	5.47	43.5	.126
Foreign-born:												
English	2	5.25	44.5	.118	12	6.01	42.5	.141	......	......	......	......
French	2	7.55	46.3	.163	1	6.00	50.3	.119	......	......	......	......
German	9	6.37	46.0	.139	6	5.60	38.6	.145	9	6.05	41.2	.147
Greek	12	4.88	45.0	.108	2	6.04	40.9	.148	91	6.08	41.6	.146
Irish	......	......	......	......	1	3.40	36.0	.094	1	7.50	55.0	.136
Italian	8	4.91	39.4	.125	2	6.28	46.0	.136	33	6.82	45.7	.149
Slav	67	7.36	44.1	.167	1	5.63	40.5	.139	26	6.11	43.7	.140
Other races	6	5.68	37.2	.153	14	7.73	47.0	.164	17	6.33	40.1	.158
Total	106	6.68	43.6	.153	39	6.50	43.6	.149	177	6.25	42.6	.147
Total males 16 to 20 years	626	5.97	42.1	.142	986	5.82	40.1	.145	768	5.78	42.7	.135

TABLE IX.—AVERAGE HOURS WORKED AND AVERAGE WEEKLY AND HOURLY EARNINGS, IN A REPRESENTATIVE WEEK, OF EMPLOYEES IN "BOYS' OCCUPATIONS," BY AGE GROUPS, NATIVITY, RACE, AND STATE—Continued.

A.—BOTTLES AND JARS—Continued.

Age, sex, and race.	Ohio.				Indiana.				Illinois.			
	Number of employees.	Average earnings per week.	Average hours per week.	Average earnings per hour.	Number of employees.	Average earnings per week.	Average hours per week.	Average earnings per hour.	Number of employees.	Average earnings per week.	Average hours per week.	Average earnings per hour.
MALES UNDER 16 YEARS.												
Native-born of native parents:												
White	93	$4.94	44.2	$0.112	291	$4.86	39.3	$0.124	117	$4.47	44.0	$0.102
Colored	5	4.56	43.8	.104	15	4.83	39.8	.121	7	4.71	43.5	.108
Native-born of foreign parents:												
English	5	4.15	41.9	.099	4	4.43	38.6	.115	18	4.10	39.7	.103
German	41	4.65	46.5	.100	13	5.32	43.1	.123	52	4.26	43.3	.098
Irish	3	4.89	45.8	.107	8	4.68	38.6	.121	2	4.18	45.6	.092
Italian	1	4.50	50.3	.089	......	......	......	......	3	5.62	47.3	.119
Slav	1	6.65	45.5	.146	......	......	......	......	28	4.71	46.6	.101
Other races	2	3.41	36.7	.093	9	5.58	42.7	.131	6	4.71	43.2	.109
Total	53	4.60	45.7	.101	34	5.13	41.4	.124	109	4.41	43.7	.101
Foreign-born:												
English	1	4.50	50.3	.089	2	5.00	54.0	.093	2	4.50	47.8	.094
German	4	5.77	47.2	.122	......	......	......	......	2	5.46	48.3	.113
Greek	......	......	......	......	......	......	......	......	5	4.30	40.5	.106
Irish	......	......	......	......	......	......	......	......	1	4.50	47.8	.094
Italian	......	......	......	......	1	5.50	49.0	.112	7	4.93	46.3	.107
Slav	2	5.17	37.5	.138	......	......	......	......	4	5.15	46.3	.111
Other races	1	4.13	46.4	.089	3	6.04	43.9	.138	2	4.95	47.8	.104
Total	8	5.25	45.1	.117	6	5.61	48.1	.116	23	4.82	45.5	.106
Total males under 16 years	159	4.83	44.7	.108	346	4.90	39.7	.124	256	4.48	44.0	.102
Total males, all ages	935	6.12	42.9	.143	1,657	5.78	39.9	.145	1,541	5.90	42.8	.138

Age, sex, and race.	Wisconsin, Missouri, and Kansas.				West Virginia.				Maryland.			
MALES 21 YEARS AND OVER.												
Native-born of native parents, white	9	$5.09	31.8	$0.160	9	$6.36	41.6	$0.153	15	$4.78	45.6	$0.105
Native-born of foreign parents:												
German	3	6.16	42.4	.145	......	......	......	......	3	6.67	48.3	.138
Irish	1	6.40	38.5	.166	1	6.60	46.4	.142	......	......	......	......
Total	4	6.22	41.4	.150	1	6.60	46.4	.142	3	6.67	48.3	.138
Foreign-born:												
German	1	7.43	46.4	.160	......	......	......	......	......	......	......	......
Greek	3	6.70	42.3	.159	1	7.50	41.6	.180	......	......	......	......
Italian	2	7.43	46.8	.159	......	......	......	......	......	......	......	......
Slav	20	7.43	46.9	.159	1	7.50	41.6	.180	......	......	......	......
Other races	32	6.97	43.7	.160	......	......	......	......	......	......	......	......
Total	58	7.14	44.9	.159	2	7.50	41.6	.180	......	......	......	......
Total males 21 years and over	71	6.83	43.0	.159	12	6.57	42.0	.156	18	5.09	46.1	.110

TABLE IX.—AVERAGE HOURS WORKED AND AVERAGE WEEKLY AND HOURLY EARNINGS, IN A REPRESENTATIVE WEEK, OF EMPLOYEES IN "BOYS' OCCUPATIONS," BY AGE GROUPS, NATIVITY, RACE, AND STATE—Continued.

A.—BOTTLES AND JARS—Continued.

Age, sex, and race.	Wisconsin, Missouri, and Kansas.				West Virginia.				Maryland.			
	Number of employees.	Average earnings per week.	Average hours per week.	Average earnings per hour.	Number of employees.	Average earnings per week.	Average hours per week.	Average earnings per hour.	Number of employees.	Average earnings per week.	Average hours per week.	Average earnings per hour.
MALES 16 TO 20 YEARS.												
Native-born of native parents:												
White	93	$5.95	39.8	$0.150	46	$5.65	42.6	$0.133	89	$3.90	46.0	$0.085
Colored	28	6.12	41.9	.146	......	......	......	......	25	3.34	44.9	.074
Native-born of foreign parents:												
English	......	......	......	......	1	8.10	46.4	.175	......	......	......	......
French	1	6.00	36.0	.167	......	......	......	......	1	6.25	45.0	.139
German	41	6.18	40.3	.153	1	7.75	42.1	.184	12	4.26	49.5	.086
Irish	1	6.60	46.4	.142	1	6.75	48.5	.139	5	3.93	46.9	.084
Italian	......	......	......	......	1	3.34	37.5	.089	......	......	......	......
Slav	21	5.17	35.6	.145	......	......	......	......	......	......	......	......
Other races	1	4.38	29.8	.147	......	......	......	......	......	......	......	......
Total	65	5.83	38.7	.151	4	6.49	43.6	.149	18	4.28	48.6	.088
Foreign-born:												
English	4	5.14	37.3	.138	......	......	......	......	......	......	......	......
German	9	6.09	39.5	.154	1	6.00	50.3	.119	4	2.99	36.5	.082
Greek	1	6.60	46.4	.142	......	......	......	......	......	......	......	......
Irish	......	......	......	......	......	......	......	......	1	3.35	43.5	.077
Italian	2	6.50	42.3	.154	......	......	......	......	......	......	......	......
Slav	32	5.89	40.9	.144	1	6.18	41.2	.150	1	4.00	50.3	.080
Other races	19	6.47	43.0	.150	......	......	......	......	1	9.00	50.0	.180
Total	67	4.57	41.2	.111	2	6.09	45.8	.133	7	4.04	41.4	.098
Total males 16 to 20 years	253	5.97	40.1	.149	52	5.73	42.8	.134	139	3.85	45.9	.084
MALES UNDER 16 YEARS.												
Native-born of native parents:												
White	18	5.53	44.2	.125	36	4.69	40.2	.117	75	3.09	44.6	.067
Colored	15	5.63	43.3	.130	......	......	......	......	26	2.36	41.7	.056
Native-born of foreign parents:												
English	......	......	......	......	3	4.30	39.7	.108	......	......	......	......
German	18	5.67	42.3	.134	5	4.55	38.2	.119	11	3.10	49.2	.064
Irish	......	......	......	......	2	4.55	43.5	.105	4	3.74	50.3	.074
Italian	......	......	......	......	......	......	......	......	1	2.70	35.5	.076
Slav	24	5.27	43.9	.120	2	3.25	26.3	.124	......	......	......	......
Other races	1	5.25	42.5	.124	......	......	......	......	......	......	......	......
Total	43	5.44	43.2	.126	12	4.27	37.5	.114	16	3.23	48.6	.066
Foreign-born:												
German	4	4.05	33.4	.121	......	......	......	......	4	2.34	39.2	.060
Irish	......	......	......	......	......	......	......	......	1	3.00	40.0	.075
Italian	1	3.50	29.8	.117	......	......	......	......	......	......	......	......
Slav	5	5.59	46.9	.119	5	4.93	34.1	.145	......	......	......	......
Other races	......	......	......	......	1	3.78	31.4	.120	......	......	......	......
Total	10	4.76	39.8	.120	6	4.74	33.6	.141	5	2.47	39.4	.063
Total males under 16 years	86	5.41	43.0	.126	54	4.60	38.8	.118	122	2.92	44.3	.066
Total males, all ages	410	6.00	41.2	.146	118	5.30	40.9	.129	279	3.52	45.2	.078

TABLE IX.—AVERAGE HOURS WORKED AND AVERAGE WEEKLY AND HOURLY EARNINGS, IN A REPRESENTATIVE WEEK, OF EMPLOYEES IN "BOYS' OCCUPATIONS," BY AGE GROUPS, NATIVITY, RACE, AND STATE—Continued.

A.—BOTTLES AND JARS—Concluded.

Age, sex, and race.	Virginia.				Tennessee, Georgia, and South Carolina.			
	Number of employees.	Average earnings per week.	Average hours per week.	Average earnings per hour.	Number of employees.	Average earnings per week.	Average hours per week.	Average earnings per hour.
MALES 21 YEARS AND OVER.								
Native-born of native parents:								
White	5	$4.75	37.4	$0.127	6	$4.74	41.9	$0.113
Colored	......	......	......	......	2	5.40	50.3	.107
Total males 21 years and over	5	4.75	37.4	.127	8	4.91	44.0	.112
MALES 16 TO 20 YEARS.								
Native-born of native parents:								
White	62	4.07	40.8	.100	43	5.35	43.8	.122
Colored	30	3.52	42.1	.084	16	4.51	43.7	.103
Native-born of foreign parents:								
English	1	5.13	43.1	.119	......	......	......	......
German	1	2.88	45.3	.064	......	......	......	......
Irish	2	3.50	27.0	.130	......	......	......	......
Total	4	3.75	35.6	.105	......	......	......	......
Foreign-born:								
German	1	4.50	50.3	.089	......	......	......	......
Total males 16 to 20 years	97	3.89	41.1	.095	59	5.12	43.8	.117
MALES UNDER 16 YEARS.								
Native-born of native parents:								
White	35	2.67	38.6	.069	36	4.60	41.3	.111
Colored	35	3.24	42.3	.077	11	3.67	41.3	.089
Native-born of foreign parents:								
German	1	.50	7.9	.063	......	......	......	......
Other races	1	2.88	48.2	.060	......	......	......	......
Total	2	1.69	28.1	.060	......	......	......	......
Total males under 16 years	72	2.92	40.1	.073	47	4.38	41.3	.106
Total males, all ages	174	3.51	40.6	.087	114	4.80	42.8	.112

	Illinois.				Wisconsin, Missouri, and Kansas.			
FEMALES 16 YEARS AND OVER.								
Native-born of native parents:								
White	[a]8	$4.77	48.5	$0.098	......	......	......	......
Colored	41	5.17	44.9	.115	10	$3.90	33.7	$0.116
Native-born of foreign parents:								
German	6	4.72	45.5	.104	......	......	......	......
Irish	1	2.60	24.8	.105	......	......	......	......
Total	7	4.42	42.5	.104	......	......	......	......
Foreign-born:								
Other races	1	5.00	47.8	.105	......	......	......	......
Total females	57	5.02	45.2	.111	......	......	......	......

[a] Including 1 under 16.

TABLE IX.—AVERAGE HOURS WORKED AND AVERAGE WEEKLY AND HOURLY EARNINGS, IN A REPRESENTATIVE WEEK, OF EMPLOYEES IN "BOYS' OCCUPATIONS," BY AGE GROUPS, NATIVITY, RACE, AND STATE—Continued.

B.—TABLEWARE, SHADES, ETC.

Age, sex, and race.	Massachusetts.				New York.				Pennsylvania.			
	Number of employees.	Average. earnings per week.	Average. hours per week.	Average earnings per hour.	Number of employees.	Average earnings per week.	Average hours per week.	Average earnings per hour.	Number of employees.	Average earnings per week.	Average hours per week.	Average earnings per hour.
MALES 21 YEARS AND OVER.												
Native-born of native parents:												
White	1	$9.00	46.8	$0.192	39	$6.92	46.4	$0.149	8	$5.77	44.1	$0.131
Colored	......	......	......	......	......	......	......	......	1	6.10	49.5	.123
Native-born of foreign parents:												
English	......	......	......	......	2	7.73	50.0	.155	2	7.65	44.7	.171
French	......	......	......	......	......	......	......	......	1	4.48	29.3	.153
German	......	......	......	......	8	5.69	41.0	.139	6	5.13	35.5	.145
Irish	......	......	......	......	4	7.13	48.8	.146	2	5.25	47.3	.111
Italian	......	......	......	......	......	......	......	......	1	10.00	58.0	.172
Other races	1	7.20	45.0	.160	......	......	......	......	......	......	......	......
Total	1	7.20	45.0	.160	14	6.39	44.5	.144	12	5.92	40.3	.147
Foreign-born:												
English	......	......	......	......	......	......	......	......	2	6.45	27.3	.237
French	......	......	......	......	......	......	......	......	1	9.00	58.0	.155
German	......	......	......	......	4	6.21	44.5	.140	5	9.28	52.2	.178
Irish	......	......	......	......	2	8.18	52.8	.155	1	6.65	39.9	.167
Italian	......	......	......	......	22	4.10	33.3	.123	8	6.65	43.5	.153
Slav	......	......	......	......	......	......	......	......	10	7.27	45.0	.162
Other races	1	4.00	40.0	.100	6	7.83	52.4	.149	......	......	......	......
Total	1	4.00	40.0	.100	34	5.24	39.1	.134	27	7.44	44.9	.166
Total males 21 years and over.	3	6.73	43.9	.153	87	6.18	43.3	.143	48	6.75	43.7	.154
MALES 16 TO 20 YEARS.												
Native-born of native parents:												
White	7	4.61	38.9	.119	125	6.16	46.0	.134	196	4.45	36.9	.120
Colored	......	......	......	......	......	......	......	......	4	6.12	46.7	.131
Native-born of foreign parents:												
English	7	4.61	36.0	.128	5	4.86	34.3	.142	21	5.44	39.2	.139
French	......	......	......	......	1	4.05	32.5	.125	13	4.35	35.2	.124
German	1	4.00	40.0	.100	16	5.18	39.9	.130	81	5.65	43.3	.130
Irish	9	6.00	42.2	.142	7	6.14	50.1	.123	27	4.02	35.4	.114
Italian	......	......	......	......	3	6.30	43.8	.144	9	4.76	36.3	.131
Slav	......	......	......	......	2	3.03	26.3	.115	45	4.26	37.6	.113
Other races	7	4.69	35.2	.136	4	4.71	35.2	.134	9	4.87	38.6	.126
Total	24	5.13	38.3	.135	38	5.21	39.9	.136	205	4.95	39.6	.125
Foreign-born:												
English	5	5.80	43.7	.133	2	5.83	45.5	.128	4	6.12	49.0	.125
French	1	6.75	38.3	.176	......	......	......	......	6	5.61	41.3	.136
German	2	7.40	46.0	.161	2	3.70	31.5	.117	16	5.00	39.1	.128
Irish	1	8.25	46.8	.176	......	......	......	......	2	2.65	23.8	.112
Italian	......	......	......	......	24	4.15	33.1	.126	54	4.44	35.9	.124
Slav	3	5.47	40.3	.136	1	3.20	31.0	.103	43	5.36	43.0	.125
Other races	5	6.23	37.9	.165	12	6.67	47.8	.139	8	4.56	39.0	.117
Total	17	6.26	41.5	.150	41	4.93	37.9	.130	133	4.89	39.2	.125
Total males 16 to 20 years	48	5.45	39.5	.138	204	5.74	43.2	134	538	4.76	38.6	.123

TABLE IX.—AVERAGE HOURS WORKED AND AVERAGE WEEKLY AND HOURLY EARNINGS, IN A REPRESENTATIVE WEEK, OF EMPLOYEES IN "BOYS' OCCUPATIONS," BY AGE GROUPS, NATIVITY, RACE, AND STATE—Continued.

B.—TABLEWARE, SHADES, ETC.—Continued.

Age, sex, and race.	Massachusetts.				New York.				Pennsylvania.			
	Number of employees.	Average earnings per week.	Average hours per week.	Average earnings per hour.	Number of employees.	Average earnings per week.	Average hours per week.	Average earnings per hour.	Number of employees.	Average earnings per week.	Average hours per week.	Average earnings per hour.
MALES UNDER 16 YEARS.												
Native-born of native parents:												
White	9	$1.81	21.8	$0.083	23	$4.23	46.6	$0.091	222	$3.74	35.8	$0.104
Colored	......	......	......	......	......	......	......	......	5	4.77	42.8	.111
Native-born of foreign parents:												
English	......	......	......	......	......	......	......	......	28	4.25	40.1	.106
French	2	3.73	40.5	.092	......	......	......	......	3	6.25	45.8	.137
German	......	......	......	......	6	4.04	33.9	.119	76	4.45	43.2	.103
Irish	2	5.39	46.0	.117	......	......	......	......	36	3.12	34.0	.092
Italian	......	......	......	......	7	4.61	36.9	.125	33	3.74	34.6	.108
Slav	......	......	......	......	1	1.89	20.5	.092	79	3.80	38.9	.098
Other races	5	4.23	41.3	.103	......	......	......	......	27	4.13	35.6	.116
Total	9	4.37	42.1	.104	14	4.17	34.4	.121	282	3.98	38.8	.103
Foreign-born:												
English	1	4.94	42.5	.116	......	......	......	......	5	5.17	44.3	.117
French	1	5.39	46.0	.117	......	......	......	......	5	5.40	41.8	.129
German	......	......	......	......	......	......	......	......	16	4.62	42.7	.108
Irish	......	......	......	......	......	......	......	......	2	1.93	27.2	.071
Italian	......	......	......	......	1	5.50	35.0	.157	31	4.13	36.9	.112
Slav	......	......	......	......	1	4.50	44.0	.102	49	3.79	37.0	.102
Other races	1	5.39	46.0	.117	......	......	......	......	11	4.25	35.7	.119
Total	3	5.24	44.8	.117	2	5.00	39.5	.127	119	4.13	38.0	.109
Total males under 16 years	21	3.40	33.8	.100	39	4.25	41.9	.101	628	3.93	37.6	.105
Total males, all ages	72	4.91	38.0	.128	330	5.68	43.1	.132	1,214	4.41	38.3	.115

Age, sex, and race.	Ohio.				Indiana.				West Virginia.			
MALES 21 YEARS AND OVER.												
Native-born of native parents:												
White	37	$4.69	34.0	$0.138	20	$4.07	32.1	$0.127	34	$5.96	41.1	$0.145
Native-born of foreign parents:												
English	1	5.90	44.0	.134	......	......	......	......	......	......	......	......
French	1	4.04	32.3	.125	......	......	......	......	1	6.00	45.0	.133
German	10	5.66	41.6	.136	......	......	......	......	1	6.69	40.1	.167
Irish	1	4.74	37.9	.125	......	......	......	......	1	2.25	16.9	.133
Slav	1	2.75	22.5	.122	......	......	......	......	......	......	......	......
Total	14	5.29	39.4	.134	......	......	......	......	3	4.98	34.0	.146
Foreign-born:												
English	......	......	......	......	......	......	......	......	2	4.28	37.2	.115
German	5	5.55	41.7	.133	......	......	......	......	2	8.13	50.8	.160
Greek	2	7.13	59.7	.119	......	......	......	......	......	......	......	......
Irish	1	4.47	26.8	.167	......	......	......	......	......	......	......	......
Italian	1	7.20	58.5	.123	......	......	......	......	......	......	......	......
Slav	3	7.27	51.5	.141	......	......	......	......	5	9.21	45.4	.203
Total	12	6.29	47.3	.133	......	......	......	......	9	7.87	44.7	.176
Total males 21 years and over.	63	5.13	37.8	.136	20	4.07	32.1	.127	46	6.27	41.3	.152

TABLE IX.—AVERAGE HOURS WORKED AND AVERAGE WEEKLY AND HOURLY EARNINGS, IN A REPRESENTATIVE WEEK, OF EMPLOYEES IN "BOYS' OCCUPATIONS," BY AGE GROUPS, NATIVITY, RACE, AND STATE—Concluded.

B.—TABLEWARE, SHADES, ETC.—Concluded.

Age, sex, and race.	Ohio.				Indiana.				West Virginia.			
	Number of employees.	Average earnings per week.	Average hours per week.	Average earnings per hour.	Number of employees.	Average earnings per week.	Average hours per week.	Average earnings per hour.	Number of employees.	Average earnings per week.	Average hours per week.	Average earnings per hour.
MALES 16 TO 20 YEARS.												
Native-born of native parents:												
White	471	$4.76	38.3	$0.124	101	$4.38	35.9	$0.122	204	$5.64	38.2	$0.148
Colored	12	4.87	40.8	.119	......	......	......	......	1	8.40	47.3	.178
Native-born of foreign parents:												
English	21	4.74	37.5	.126	3	4.02	31.2	.130	6	4.42	32.9	.135
French	11	4.60	33.0	.139	1	4.75	36.7	.129	6	4.38	30.8	.142
German	81	4.76	35.8	.133	11	4.20	34.6	.121	19	6.35	37.3	.170
Irish	19	5.69	40.8	.139	2	4.10	34.3	.120	4	4.15	36.1	.115
Italian	3	4.82	38.9	.124	......	......	......	......	......	......	......	......
Slav	68	4.07	30.4	.134	......	......	......	......	......	......	......	......
Other races	17	4.62	33.0	.140	......	......	......	......	1	5.40	40.5	.133
Total	220	4.61	34.4	.134	17	4.19	34.1	.123	36	5.43	35.4	.153
Foreign-born:												
English	1	5.40	40.5	.133	......	......	......	......	......	......	......	......
French	8	5.92	51.1	.116	......	......	......	......	4	5.66	45.6	.124
German	13	4.59	40.3	.114	2	4.98	38.5	.129	3	5.25	44.8	.117
Greek	20	6.86	55.9	.123	......	......	......	......	......	......	......	......
Italian	17	5.67	48.9	.116	......	......	......	......	8	5.69	44.6	.128
Slav	56	4.45	36.3	.122	......	......	......	......	1	8.00	60.0	.133
Other races	10	5.26	41.8	.126	4	4.41	38.2	.116	......	......	......	......
Total	125	5.18	43.0	.121	6	4.60	38.3	.120	16	5.74	45.8	.125
Total males 16 to 20 years	828	4.79	38.0	.126	124	4.36	35.8	.122	257	5.63	38.3	.147
MALES UNDER 16 YEARS.												
Native-born of native parents:												
White	126	4.53	37.7	.120	37	3.83	30.7	.125	248	4.45	35.8	.125
Colored	4	5.48	51.0	.107	......	......	......	......	4	4.28	45.0	.095
Native-born of foreign parents:												
English	4	4.24	33.0	.129	1	5.15	39.8	.129	5	3.33	28.3	.118
French	5	3.19	25.3	.126	1	5.50	42.5	.129	3	4.53	38.1	.119
German	26	4.58	36.7	.125	4	3.90	30.9	.126	24	3.96	34.3	.115
Irish	4	6.19	41.5	.149	......	......	......	......	4	3.97	37.1	.107
Italian	......	......	......	......	......	......	......	......	3	4.69	43.5	.108
Slav	30	4.30	32.6	.132	......	......	......	......	5	4.09	37.0	.110
Other races	3	3.16	24.3	.130	1	3.85	36.0	.107	8	4.38	39.9	.116
Total	72	4.37	33.8	.130	7	4.30	34.5	.124	52	4.09	35.8	.114
Foreign-born:												
English	......	......	......	......	......	......	......	......	2	5.65	49.5	.114
French	6	4.42	40.1	.110	......	......	......	......	4	6.06	49.5	.122
German	2	3.03	26.2	.116	1	.45	4.3	.105	9	3.91	35.8	.109
Greek	3	7.20	58.5	.123	......	......	......	......	......	......	......	......
Italian	2	4.85	41.8	.116	......	......	......	......	16	4.35	44.5	.098
Slav	6	4.76	42.1	.113	......	......	......	......	5	4.90	41.7	.117
Other races	2	5.25	38.0	.138	4	3.48	36.6	.095	......	......	......	......
Total	21	4.90	41.9	.117	5	2.87	30.1	.095	36	4.58	42.8	.107
Total males under 16 years	223	4.53	37.1	.122	49	3.80	31.2	.122	340	4.41	36.6	.120
Total males, all ages	1,114	4.76	37.8	.126	193	4.19	34.2	.123	643	5.03	37.6	.133

TABLE X.—AVERAGE HOURLY EARNINGS, BY OCCUPATIONS.

This table shows for each State the average earnings per hour for male and female employees employed in the glass factories covered by this investigation in a representative week, by age groups, nativity, and occupations. The table includes, for the establishments investigated, all persons at work in the furnace room who were employed in any occupation in which women or children were engaged, and all children and female employees in other departments than the furnace room, for whom the facts covered by the table were reported. The figures refer to the employees on the pay rolls of the several establishments during a particular pay-roll period toward the end of 1907 or in the early part of 1908. The pay-roll period selected was, as a rule, the one just prior to the investigation by the agent of the Bureau. Care was taken, however, that it should be a period when the establishment was working full time and approximately the normal number of employees were at work.

The table is presented in three sections: A, showing the facts for furnace-room employees in establishments manufacturing bottles and jars; B, for furnace-room employees in establishments manufacturing tableware, shades, etc.; and, C, employees in departments other than the furnace room, in all establishments.

Reference to that part of section A relating to mold boys in the State of New York shows that there were 80 persons employed in this occupation. Seventeen of these were 21 years of age and over, 57 were from 16 to 20 years of age, and 6 were under 16. Of those 21 years of age and over, 5 were native-born of native parents, white, 1 was native-born of foreign-born parents, and 11 were foreign-born. The average hourly earnings of these persons were, respectively, $0.121, $0.099, and $0.159, the average for the 17 being $0.144. In like manner the earnings of each age group and each occupation in the several States may be studied. The fact should be borne in mind that a fair comparison can not be made between groups represented only by a small number of employees. The figures, therefore, for many of the classes of this table where the numbers reported were few are not of much value for purposes of comparison.

TABLE X.—AVERAGE EARNINGS PER HOUR OF EMPLOYEES IN GLASS

A.—FURNACE-ROOM EMPLOYEES: BOTTLES AND JARS, EACH STATE.

NEW YORK.

Age, sex, and nativity.	Mold boys.		Machine boys.		Snapping-up boys.	
	Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.
MALES 21 YEARS AND OVER.						
Native-born of native parents:						
White	5	$0.121	4	$0.168	7	$0.116
Colored	....	....	1	.170	....	....
Native-born of foreign parents	1	.099	5	.161	2	.118
Foreign-born	11	.159	3	.168	6	.128
Total	17	.144	13	.166	15	.122
MALES 16 TO 20 YEARS.						
Native-born of native parents:						
White	23	.108	18	.136	15	.114
Colored	....	....	1	.170	....	....
Native-born of foreign parents	13	.108	17	.143	16	.114
Foreign-born	21	.118	22	.161	28	.115
Total	57	.112	58	.149	59	.115
MALES UNDER 16 YEARS.						
Native-born of native parents:						
White	2	.102	....	....	6	.096
Native-born of foreign parents	4	.104	2	.124	7	.098
Foreign-born	....	....	....	....	3	.107
Total	6	.103	2	.124	16	.099
Grand total	80	.118	73	.151	90	.113
NEW JERSEY.						
MALES 21 YEARS AND OVER.						
Native-born of native parents:						
White	42	$0.139	3	$0.149	38	$0.129
Colored	3	.108	....	....	2	.147
Native-born of foreign parents	4	.141	1	.159	7	.127
Foreign-born	8	.123	2	.143	13	.119
Total	57	.135	6	.149	60	.127
MALES 16 TO 20 YEARS.						
Native-born of native parents:						
White	162	.119	17	.125	270	.114
Colored	15	.116	....	....	24	.103
Native-born of foreign parents	39	.121	8	.124	42	.114
Foreign-born	27	.114	2	.125	58	.115
Total	243	.118	27	.125	394	.114
MALES UNDER 16 YEARS.						
Native-born of native parents:						
White	56	.100	3	.119	142	.103
Colored	4	.090	....	....	5	.101
Native-born of foreign parents	18	.098	....	....	20	.097
Foreign-born	7	.099	....	....	16	.107
Total	85	.099	3	.119	183	.103
Grand total	385	.116	36	.129	637	.112

FACTORIES, BY SEX, AGE GROUPS, NATIVITY, AND OCCUPATION.

A.—FURNACE-ROOM EMPLOYEES: BOTTLES AND JARS, EACH STATE.

NEW YORK.

Carrying-in boys.		Cleaning-off boys.		Automatic machine tenders.		Other occupations.		Total.	
Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.
1	$0.119							17	$0.131
								1	.170
2	.179							10	.153
11	.144							31	.148
14	.148							59	.145
15	.145	2	$0.083			1	$0.121	74	.122
								1	.170
8	.136	1	.121			1	.091	56	.125
19	.122							90	.128
42	.132	3	.099			2	.106	221	.125
1	.113	1	.083					10	.098
3	.096							16	.102
								3	.107
4	.101	1	.083					29	.101
60	.134	4	.095			2	.106	309	.127

NEW JERSEY.

Carrying-in boys.		Cleaning-off boys.		Automatic machine tenders.		Other occupations.		Total.	
Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.
62	$0.142	20	$0.155			2	$0.174	167	$0.141
16	.138							21	.136
3	.124	2	.119			1	.133	18	.131
71	.115							94	.117
152	.129	22	.151			3	.162	300	.132
144	.119	56	.121			9	.126	658	.117
15	.126							54	.115
16	.117	4	.120					109	.118
61	.109	1	.119			1	.088	150	.112
236	.117	61	.121			10	.123	971	.117
62	.098	5	.103			3	.091	271	.102
5	.101							14	.097
19	.088	1	.074					58	.094
24	.090	1	.083			3	.117	51	.098
110	.095	7	.097			6	.102	394	.100
498	.116	90	.126			19	.123	1,665	.116

TABLE X.—AVERAGE EARNINGS PER HOUR OF EMPLOYEES IN GLASS

A.—FURNACE-ROOM EMPLOYEES: BOTTLES AND JARS, EACH STATE—Continued.

PENNSYLVANIA.

Age, sex, and nativity.	Mold boys.		Machine boys.		Snapping-up boys.	
	Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.
MALES 21 YEARS AND OVER.						
Native-born of native parents:						
White	7	$0.148	2	$0.166	10	$0.152
Colored	3	.151	1	.165	3	.145
Native-born of foreign parents	4	.160	1	.168	2	.179
Foreign-born	3	.131	4	.162	9	.150
Total	17	.149	8	.164	24	.153
MALES 16 TO 20 YEARS.						
Native-born of native parents:						
White	101	.130	29	.141	100	.118
Colored	8	.116	4	.155	5	.114
Native-born of foreign parents	69	.129	24	.128	53	.122
Foreign-born	39	.136	19	.151	50	.125
Total	217	.131	76	141	208	.121
MALES UNDER 16 YEARS.						
Native-born of native parents:						
White	71	.118	11	.132	114	.109
Colored	1	.096			4	.120
Native-born of foreign parents	96	.111	16	127	98	.111
Foreign-born	25	.120	10	132	67	.111
Total	193	.115	37	.130	283	.110
Grand total	427	.124	121	.139	515	.116

OHIO.

Age, sex, and nativity.	Mold boys.		Machine boys.		Snapping-up boys.	
	Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.
MALES 21 YEARS AND OVER.						
Native-born of native parents:						
White	10	$0.177			16	$0.178
Colored	2	.135	1	$0.167	1	.150
Native-born of foreign parents	1	.161			2	.144
Foreign-born	4	.187			12	.155
Total	17	.174	1	.167	31	.166
MALES 16 TO 20 YEARS.						
Native-born of native parents:						
White	123	.144	3	.150	110	.135
Colored	9	.133	9	.165	9	.122
Native-born of foreign parents	45	.131	1	.165	36	.130
Foreign-born	15	.145	4	.151	35	.129
Total	192	.140	17	.160	190	.132
MALES UNDER 16 YEARS.						
Native-born of native parents:						
White	23	.109	1	.147	53	.111
Colored	1	.106			3	.109
Native-born of foreign parents	13	.095			31	.102
Foreign-born	3	.136			3	.119
Total	40	.106	1	.147	90	.108
Grand total	249	.137	19	.160	311	.128

FACTORIES, BY SEX, AGE GROUPS, NATIVITY, AND OCCUPATION—Con.

A.—FURNACE-ROOM EMPLOYEES: BOTTLES AND JARS, EACH STATE—Continued.

PENNSYLVANIA.

Carrying-in boys.		Cleaning-off boys.		Automatic machine tenders.		Other occupations.		Total.	
Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.
8	$0.152	2	$0.119	....	....	....	....	29	$0.150
3	.137	....	....	....	....	....	....	10	.146
2	.150	8	.163	....	....	....	....	17	.163
31	.152	2	.201	3	$0.273	....	....	52	.160
44	.151	12	.163	3	.273	....	....	108	.156
79	.138	54	.123	14	.273	....	....	377	.133
7	.137	....	....	....	....	....	....	24	.130
40	.121	43	.133	6	.273	....	....	235	.130
77	.140	16	.138	4	.273	....	....	205	.139
203	.135	113	.129	24	.273	....	....	841	.133
71	.104	25	.110	....	....	5	$0.090	297	.111
1	.098	....	....	....	....	....	....	6	.111
67	.104	29	.115	1	.273	1	.090	308	.111
29	.108	7	.123	....	....	1	.078	139	.114
168	.105	61	.114	1	.273	7	.088	750	.111
415	.125	186	.126	28	.273	7	.088	1,699	.125

OHIO.

12	$0.176	1	$0.147	12	$0.196	....	....	51	$0.180
3	.188	....	....	....	....	....	....	7	.162
3	.176	1	.135	4	.197	....	....	11	.174
8	.156	1	.179	56	.195	....	....	81	.186
26	.170	3	.156	72	.195	....	....	150	.182
75	.139	11	.132	12	.195	....	....	334	.141
26	.142	....	....	....	....	....	....	53	.142
45	.137	5	.136	1	.196	....	....	133	.134
21	.139	1	.090	30	.194	....	....	106	.153
167	.140	17	.130	43	.195	....	....	626	.142
16	.119	....	....	....	....	....	....	93	.112
1	.090	....	....	....	....	....	....	5	.104
9	.106	....	....	....	....	....	....	53	.101
2	.089	....	....	....	....	....	....	8	.117
28	.111	....	....	....	....	....	....	159	.108
221	.140	20	.134	115	.195	....	....	935	.143

TABLE X.—AVERAGE EARNINGS PER HOUR OF EMPLOYEES IN GLASS

A.—FURNACE-ROOM EMPLOYEES: BOTTLES AND JARS, EACH STATE—Continued.

INDIANA.

Age, sex, and nativity.	Mold boys.		Machine boys.		Snapping-up boys.	
	Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.
MALES 21 YEARS AND OVER.						
Native-born of native parents:						
White	66	$0.157	18	$0.166	34	$0.175
Colored	5	.182	2	.174	6	.180
Native-born of foreign parents	3	.158	4	.121	5	.162
Foreign-born	1	.147			4	.184
Total	75	.158	24	.161	49	.175
MALES 16 TO 20 YEARS.						
Native-born of native parents:						
White	242	.147	92	.145	239	.147
Colored	2	.175	4	.207	35	.151
Native-born of foreign parents	16	.153	17	.121	19	.148
Foreign-born	12	.144	3	.093	16	.163
Total	272	.148	116	.144	309	.149
MALES UNDER 16 YEARS.						
Native-born of native parents:						
White	69	.132	11	.113	108	.126
Colored					9	.116
Native-born of foreign parents	6	.136	1	.100	12	.129
Foreign-born	2	.128			2	.133
Total	77	.132	12	.112	131	.126
Grand total	424	.147	152	.144	489	.145

ILLINOIS.

MALES 21 YEARS AND OVER.						
Native-born of native parents:						
White	25	$0.149	5	$0.143	10	$0.155
Colored	38	.159			21	.160
Native-born of foreign parents	5	.151	4	.147	7	.149
Foreign-born	32	.155	3	.139	63	.154
Total	100	.154	12	.143	101	.155
MALES 16 TO 20 YEARS.						
Native-born of native parents:						
White	123	.133	32	.139	94	.124
Colored	40	.152			32	.137
Native-born of foreign parents	46	.124	8	.143	44	.128
Foreign-born	39	.145	1	.154	107	.145
Total	248	.136	41	.140	277	.134
MALES UNDER 16 YEARS.						
Native-born of native parents:						
White	26	.105	2	.127	62	.101
Colored	2	.128			3	.093
Native-born of foreign parents	32	.103			50	.103
Foreign-born	5	.105			17	.107
Total	65	.105	2	.127	132	.102
Total males	413	.135	55	.140	510	.130

FACTORIES, BY SEX, AGE GROUPS, NATIVITY, AND OCCUPATION—Con.

A.—FURNACE-ROOM EMPLOYEES: BOTTLES AND JARS, EACH STATE—Continued.

INDIANA.

Carrying-in boys.		Cleaning-off boys.		Automatic machine tenders.		Other occupations.		Total.	
Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.
112	$0.170	16	$0.172	....	....	1	$0.159	247	$0.170
10	.154	....	....	....	....	....	....	23	.170
14	.172	2	.131	....	....	....	....	28	.161
22	.175	....	....	....	....	....	....	27	.175
158	.170	18	.169	....	....	1	.159	325	.167
169	.134	49	.155	....	....	7	.152	798	.145
32	.143	....	....	....	....	1	.147	74	.152
18	.121	3	.143	....	....	2	.148	75	.138
7	.149	1	.114	....	....	....	....	39	.149
226	.135	53	.154	....	....	10	.151	986	.145
91	.112	8	.153	....	....	4	.119	291	.124
6	.131	....	....	....	....	....	....	15	.121
14	.115	1	.139	....	....	....	....	34	.124
2	.093	....	....	....	....	....	....	6	.116
113	.113	9	.152	....	....	4	.119	346	.124
497	.141	80	.157	....	....	15	.143	1,657	.145

ILLINOIS.

47	$0.159	11	$0.143	....	....	....	....	98	$0.153
47	.172	....	....	....	....	....	....	106	.165
16	.170	4	.159	....	....	....	....	36	.159
151	.164	28	.159	....	....	....	....	277	.160
261	.165	43	.155	....	....	....	....	517	.160
49	.134	74	.133	....	....	....	....	372	.131
10	.160	....	....	....	....	....	....	82	.147
14	.115	25	.124	....	....	....	....	137	.126
18	.161	12	.143	....	....	....	....	177	.147
91	.141	111	.132	....	....	....	....	768	.135
15	.092	12	.107	....	....	....	....	117	.102
2	.108	....	....	....	....	....	....	7	.108
8	.102	19	.092	....	....	....	....	109	.101
....	....	1	.088	....	....	....	....	23	.106
25	.097	32	.097	....	....	....	....	256	.102
377	.155	186	.131	....	....	....	....	1,541	.138

TABLE X.—AVERAGE EARNINGS PER HOUR OF EMPLOYEES IN GLASS

A.—FURNACE-ROOM EMPLOYEES: BOTTLES AND JARS, EACH STATE—Continued.

ILLINOIS—Concluded.

Age, sex, and nativity.	Mold boys.		Machine boys.		Snapping-up boys.	
	Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.
FEMALES 16 YEARS AND OVER.						
Native-born of native parents:						
White						
Colored					29	$0.114
Native-born of foreign parents						
Foreign-born						
Total females					29	.114
Grand total	413	$0.135	55	$0.140	539	.129

WISCONSIN, MISSOURI, AND KANSAS.

MALES 21 YEARS AND OVER.						
Native-born of native parents:						
White	1	$0.142	5	$0.167	1	$0.154
Native-born of foreign parents	1	.142				
Foreign-born	2	.159			6	.157
Total	4	.150	5	.167	7	.157
MALES 16 TO 20 YEARS.						
Native-born of native parents:						
White	19	.133	17	.163	20	.141
Colored	13	.147	3	.167	12	.141
Native-born of foreign parents	27	.147	2	.167	23	.148
Foreign-born	21	.145			20	.141
Total	80	.143	22	.163	75	.143
MALES UNDER 16 YEARS OF AGE.						
Native-born of native parents:						
White	5	.132	4	.109	3	.131
Colored	7	.131			8	.129
Native-born of foreign parents	23	.131			16	.121
Foreign-born	5	.122			3	.118
Total	40	.130	4	.109	30	.124
Total males	124	.139	31	.157	112	.139
FEMALES 16 YEARS AND OVER.						
Native-born of native parents:						
Colored	2	.120				
Total females	2	.120				
Grand total	126	.139	31	.157	112	.139

[a] Including 1 female under 16.

FACTORIES, BY SEX, AGE GROUPS, NATIVITY, AND OCCUPATION—Con.

A.—FURNACE-ROOM EMPLOYEES: BOTTLES AND JARS, EACH STATE—Continued.

ILLINOIS—Concluded.

Carrying-in boys.		Cleaning-off boys.		Automatic machine tenders.		Other occupations.		Total.	
Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.
						a 8	$0.098	8	$0.098
12	$0.117							41	.115
						7	.104	7	.104
						1	.105	1	.105
12	.117					a 16	.101	57	.111
389	.154	186	$0.131			a 16	.101	1,598	.137

WISCONSIN, MISSOURI, AND KANSAS.

Carrying-in boys.		Cleaning-off boys.		Automatic machine tenders.		Other occupations.		Total.	
Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.
2	$0.164							9	$0.160
3	.153							4	.150
50	.159							58	.159
55	.159							71	.159
32	.159	5	$0.143					93	.150
								28	.146
10	.170	3	.139					65	.151
25	.155	1	.119					67	.111
67	.159	9	.139					253	.149
4	.130	2	.118					18	.125
								15	.130
2	.120	2	.121					43	.126
1	.120	1	.117					10	.120
7	.125	5	.119					86	.126
129	.157	14	.132					410	.146
8	.116							10	.116
8	.116							10	.116
137	.155	14	.132					420	.145

TABLE X.—AVERAGE EARNINGS PER HOUR OF EMPLOYEES IN GLASS

A.—FURNACE-ROOM EMPLOYEES: BOTTLES AND JARS, EACH STATE—Continued.

WEST VIRGINIA.

Age, sex, and nativity.	Mold boys.		Machine boys.		Snapping-up boys.	
	Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.
MALES 21 YEARS AND OVER.						
Native-born of native parents:						
White	2	$0.149	2	$0.126	2	$0.145
Native-born of foreign parents	1	.142				
Foreign-born						
Total	3	.147	2	.126	2	.145
MALES 16 TO 20 YEARS.						
Native-born of native parents:						
White	10	.127	11	.130	8	.121
Native-born of foreign parents			1	.089		
Foreign-born					1	.150
Total	10	.127	12	.127	9	.124
MALES UNDER 16 YEARS.						
Native-born of native parents:						
White	7	.124	9	.114	5	.120
Native-born of foreign parents	6	.119			4	.119
Foreign-born	2	.138	2	.150	2	.128
Total	15	.124	11	.120	11	.120
Grand total	28	.128	25	.124	22	.124

MARYLAND.

MALES 21 YEARS AND OVER.						
Native-born of native parents:						
White	2	$0.096	5	$0.119	2	$0.066
Native-born of foreign parents			2	.132		
Total	2	.096	7	.123	2	.066
MALES 16 TO 20 YEARS.						
Native-born of native parents:						
White	25	.085	8	.119	11	.077
Colored	6	.079			8	.068
Native-born of foreign parents	1	.095	3	.124		
Foreign-born	1	.077			1	.076
Total	33	.084	11	.120	20	.073
MALES UNDER 16 YEARS.						
Native-born of native parents:						
White	11	.072	1	.120	37	.062
Colored	6	.066			13	.053
Native-born of foreign parents	2	.075			9	.061
Foreign-born					4	.059
Total	19	.071	1	.120	63	.060
Grand total	54	.080	19	.121	85	.063

FACTORIES, BY SEX, AGE GROUPS, NATIVITY, AND OCCUPATION—Con.

A.—FURNACE-ROOM EMPLOYEES: BOTTLES AND JARS, EACH STATE—Continued.

WEST VIRGINIA.

Carrying-in boys.		Cleaning-off boys.		Automatic machine tenders.		Other occupations.		Total.	
Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.
2	$0.180	1	$0.191					9	$0.153
								1	.142
2	.180							2	.180
4	.180	1	.191					12	.156
7	.112	10	.167					46	.133
		3	.165					4	.149
		1	.119					2	.133
7	.112	14	.162					52	.134
11	.101	4	.145					36	.117
2	.093							12	.114
								6	.141
13	.100	4	.145					54	.119
24	.117	19	.160					118	.129

MARYLAND.

4	$0.118	2	$0.088					15	$0.105
1	.150							3	.138
5	.125	2	.088					18	.111
22	.079	23	.083					89	.085
11	.077							25	.074
6	.080	8	.082					18	.088
4	.114	1	.080					7	.098
43	.081	32	.083					139	.084
13	.075	12	.077			1	$0.056	75	.067
7	.054							26	.057
2	.064	3	.078					16	.067
		1	.088					5	.063
22	.068	16	.077			1	.056	122	.066
70	.080	50	.081			1	.056	279	.078

TABLE X.—AVERAGE EARNINGS PER HOUR OF EMPLOYEES IN GLASS

A.—FURNACE-ROOM EMPLOYEES: BOTTLES AND JARS, EACH STATE—Concluded.

VIRGINIA.

Age, sex, and nativity.	Mold boys.		Machine boys.		Snapping-up boys.	
	Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.
MALES 21 YEARS AND OVER.						
Native-born of native parents:						
White			3	$0.133		
Total			3	.133		
MALES 16 TO 20 YEARS.						
Native-born of native parents:						
White	13	$0.091	10	.127	12	$0.077
Colored	12	.088			9	.081
Native-born of foreign parents			1	.131	1	.064
Foreign-born					1	.090
Total	25	.090	11	.128	23	.078
MALES UNDER 16 YEARS.						
Native-born of native parents:						
White	8	.074	1	.131	18	.065
Colored	9	.088			13	.073
Native-born of foreign parents						
Total	17	.082	1	.131	31	.068
Grand total	42	.087	15	.129	54	.072

TENNESSEE, SOUTH CAROLINA, AND GEORGIA.

MALES 21 YEARS AND OVER.						
Native-born of native parents:						
White	2	$0.128				
Colored	1	.107				
Total	3	.119				
MALES 16 TO 20 YEARS.						
Native-born of native parents:						
White	15	.131			6	$0.116
Colored	8	.101			4	.118
Total	23	.121			10	.117
MALES UNDER 16 YEARS.						
Native-born of native parents:						
White	7	.110			12	.117
Colored	3	.084			6	.091
Total	10	.102			18	.109
Grand total	36	.116			28	.112

FACTORIES, BY SEX, AGE GROUPS, NATIVITY, AND OCCUPATION—Con.

A.—FURNACE-ROOM EMPLOYEES: BOTTLES AND JARS, EACH STATE—Concluded.

VIRGINIA.

Carrying-in boys.		Cleaning-off boys.		Automatic machine tenders.		Other occupations.		Total.	
Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.
2	$0.111	....	....	....	....	....	....	5	$0.127
2	.111	....	....	....	....	....	....	5	.127
21	.100	6	$0.119	....	....	....	....	62	.100
9	.080	....	....	....	....	....	....	30	.084
1	.111	1	.119	....	....	....	....	4	.105
....	....	....	....	....	....	....	....	1	.090
31	.094	7	.119	....	....	....	....	97	.095
3	.063	....	....	....	....	5	$0.062	35	.069
13	.072	....	....	....	....	....	....	35	.077
1	.060	....	....	....	....	1	.063	2	.060
17	.070	....	....	....	....	6	.062	72	.073
50	.087	7	.119	....	....	6	.062	174	.087

TENNESSEE, SOUTH CAROLINA, AND GEORGIA.

2	$0.112	2	$0.103	....	....	....	....	6	$0.113
1	.107	....	....	....	....	....	....	2	.107
3	.111	2	.103	....	....	....	....	8	.112
9	.115	13	.120	....	....	....	....	43	.122
4	.092	....	....	....	....	....	....	16	.103
13	.108	13	.120	....	....	....	....	59	.117
8	.110	8	.112	....	....	1	$0.071	36	.111
2	.091	....	....	....	....	....	....	11	.089
10	.106	8	.112	....	....	1	.071	47	.106
26	.108	23	.116	....	....	1	.071	114	.112

TABLE X.—AVERAGE EARNINGS PER HOUR OF EMPLOYEES IN GLASS

B.—FURNACE-ROOM EMPLOYEES: TABLEWARE, SHADES, ETC., EACH STATE.

MASSACHUSETTS.

Age, sex, and nativity.	Mold boys.		Sticking-up boys.		Carrying-in boys.		Cleaning-off boys.	
	Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.
MALES 21 YEARS AND OVER.								
Native-born of native parents: White.	......	......	......	......	......	......	......	......
Native-born of foreign parents	1	$0.160	......	......	......	......	......	......
Foreign-born	......	......	......	......	1	$0.100	......	......
Total	1	.160	......	......	1	.100	......	......
MALES 16 TO 20 YEARS.								
Native-born of native parents: White.	......	......	1	$0.130	3	.100	......	......
Native-born of foreign parents	......	......	7	.139	1	.100	5	$0.100
Foreign-born	1	.160	3	.146	6	.124	......	......
Total	1	.160	11	.140	10	.114	5	.100
MALES UNDER 16 YEARS.								
Native-born of native parents: White.	......	......	......	......	7	.083	2	.083
Native-born of foreign parents	......	......	2	.117	5	.099	2	.100
Foreign-born	1	.117	......	......	2	.117	......	......
Total	1	.117	2	.117	14	.097	4	.095
Grand total	3	.146	13	.136	25	.104	9	.098
NEW YORK.								
MALES 21 YEARS AND OVER.								
Native-born of native parents: White.	7	$0.151	6	$0.168	9	$0.136	11	$0.144
Native-born of foreign parents	3	.149	3	.159	......	......	5	.141
Foreign-born	5	.140	1	.127	17	.126	5	.150
Total	15	.147	10	.161	26	.130	21	.145
MALES 16 TO 20 YEARS.								
Native-born of native parents: White.	31	.136	11	.140	28	.120	36	.141
Native-born of foreign parents	5	.135	13	.144	5	.116	7	.112
Foreign-born	2	.147	7	.135	14	.108	9	.127
Total	38	.136	31	.140	47	.117	52	.135
MALES UNDER 16 YEARS.								
Native-born of native parents: White.	4	.161	5	.108	3	.097	9	.065
Native-born of foreign parents	......	......	2	.143	4	.107	6	.115
Foreign-born	1	.102	......	......	......	......	......	......
Total	5	.147	7	.116	7	.102	15	.080
Grand total	58	.140	48	.141	80	.120	88	.128

FACTORIES, BY SEX, AGE GROUPS, NATIVITY, AND OCCUPATION—Con.

B.—FURNACE-ROOM EMPLOYEES: TABLEWARE, SHADES, ETC., EACH STATE.

MASSACHUSETTS.

Cracking-off boys.		Carrying-over boys.		Crimping boys.		Machine boys.		Other occupations.		Total.	
Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.
....	....	....	....	....	....	....	....	1	$0.192	1	$0.192
....	....	....	....	....	....	....	....	....	....	1	.160
....	....	....	....	....	....	....	....	....	....	1	.100
....	....	....	....	....	....	....	....	1	.192	3	.153
....	....	....	....	....	....	....	....	3	.142	7	.119
....	....	3	$0.155	....	....	....	....	8	.142	24	.135
....	....	....	....	....	....	....	....	7	.174	17	.150
....	....	3	.155	....	....	....	....	18	.156	48	.138
....	....	....	....	....	....	....	....	....	....	9	.083
....	....	....	....	....	....	....	....	....	....	9	.104
....	....	....	....	....	....	....	....	....	....	3	.117
....	....	....	....	....	....	....	....	....	....	21	.100
....	....	3	.155	....	....	....	....	19	.158	72	.128

NEW YORK.

....	....	2	$0.155	....	....	....	....	4	$0.167	39	$0.149
1	$0.100	1	.160	....	....	....	....	1	.120	14	.144
....	....	1	.160	....	....	....	....	5	.125	34	.134
1	.100	4	.157	....	....	....	....	10	.143	87	.143
5	.100	5	.145	2	$0.150	....	....	7	.141	125	.134
2	.100	1	.153	1	.143	....	....	4	.150	38	.136
....	....	3	.114	2	.157	....	....	4	.181	41	.130
7	.100	9	.137	5	.152	....	....	15	.153	204	.134
2	.091	....	....	....	....	....	....	....	....	23	.091
....	....	....	....	2	.150	....	....	....	....	14	.121
....	....	....	....	1	.157	....	....	....	....	2	.127
2	.091	....	....	3	.152	....	....	....	....	39	.102
10	.098	13	.143	8	.152	....	....	25	.149	330	.132

TABLE X.—AVERAGE EARNINGS PER HOUR OF EMPLOYEES IN GLASS

B.—FURNACE-ROOM EMPLOYEES: TABLEWARE, SHADES, ETC., EACH STATE—Con.

PENNSYLVANIA.

Age, sex, and nativity.	Mold boys.		Sticking-up boys.		Carrying-in boys.		Cleaning-off boys.	
	Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.
MALES 21 YEARS AND OVER.								
Native-born of native parents:								
White	1	$0.122	5	$0.131	2	$0.136		
Colored							1	$0.123
Native-born of foreign parents	1	.111	5	.150	2	.148	3	.152
Foreign-born	1	.149	4	.161	13	.167		
Total	3	.127	14	.146	17	.161	4	.144
MALES 16 TO 20 YEARS.								
Native-born of native parents:								
White	11	.115	99	.125	29	.107	10	.113
Colored	2	.114	1	.129	1	.167		
Native-born of foreign parents	8	.107	90	.128	26	.117	8	.121
Foreign-born	8	.114	22	.125	38	.120	7	.100
Total	29	.112	212	.126	94	.116	25	.112
MALES UNDER 16 YEARS.								
Native-born of native parents:								
White	16	.107	62	.117	91	.094	14	.094
Colored	2	.121	1	.133				
Native-born of foreign parents	17	.114	73	.116	105	.088	14	.108
Foreign-born	6	.132	20	.119	44	.099	10	.122
Total	41	.114	156	.117	240	.092	38	.107
Grand total	73	.114	382	.123	351	.102	67	.111

OHIO.

MALES 21 YEARS AND OVER.								
Native-born of native parents: White	4	$0.123	8	$0.148	10	$0.139		
Native-born of foreign parents			3	.138	4	.138	2	$0.123
Foreign-born	1	.116			7	.134	1	.133
Total	5	.121	11	.145	21	.137	3	.127
MALES 16 TO 20 YEARS.								
Native-born of native parents:								
White	28	.132	117	.140	116	.110	55	.131
Colored	1	.117			8	.115		
Native-born of foreign parents	5	.134	31	.145	42	.120	91	.135
Foreign-born	5	.124	3	.148	52	.117	24	.119
Total	39	.131	151	.141	218	.114	170	.131
MALES UNDER 16 YEARS.								
Native-born of native parents:								
White	10	.127	17	.126	60	.120	12	.117
Colored					4	.107		
Native-born of foreign parents	4	.144	8	.130	14	.121	37	.133
Foreign-born			3	.113	13	.115	3	.133
Total	14	.132	28	.126	91	.119	52	.130
Grand total	58	.130	190	.139	330	.117	225	.131

FACTORIES, BY SEX, AGE GROUPS, NATIVITY, AND OCCUPATION—Con.

B.—FURNACE-ROOM EMPLOYEES: TABLEWARE, SHADES, ETC., EACH STATE—Con.

PENNSYLVANIA.

Cracking-off boys.		Carrying-over boys.		Crimping boys.		Machine boys.		Other occupations.		Total.	
Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.
....	....	....	....	....	....	....	....	....	....	8	$0.131
....	....	....	....	....	....	....	....	....	....	1	.123
....	....	....	....	....	....	....	....	1	$0.153	12	.147
2	$0.139	....	....	6	$0.174	1	$0.182	....	....	27	.166
2	.139	....	....	6	.174	1	.182	1	.153	48	.154
10	.113	2	$0.112	6	.161	13	.115	16	.122	196	.121
....	....	....	....	....	....	....	....	....	....	4	.131
24	.104	7	.124	14	.174	4	.115	24	.122	205	.125
25	.123	1	.087	10	.150	17	.132	5	.133	133	.125
59	.114	10	.122	30	.163	34	.123	45	.123	538	.124
12	.110	12	.099	8	.139	3	.116	4	.088	222	.105
....	....	1	.091	....	....	....	....	1	.094	5	.111
29	.101	5	.106	4	.133	16	.125	19	.092	282	.103
16	.101	3	.105	6	.122	7	.130	7	.091	119	.109
57	.103	21	.101	18	.131	26	.124	31	.091	628	.105
118	.109	31	.108	54	.154	61	.124	77	.111	1,214	.115

OHIO.

Cracking-off boys.		Carrying-over boys.		Crimping boys.		Machine boys.		Other occupations.		Total.	
Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.
7	$0.123	5	$0.146	....	....	2	$0.133	1	$0.142	37	$0.138
2	.124	....	....	....	....	1	.122	2	.147	14	.134
2	.119	....	....	1	$0.167	....	....	....	....	12	.133
11	.122	5	.146	1	.167	3	.130	3	.145	63	.136
86	.121	21	.126	....	....	27	.137	21	.105	471	.124
1	.100	1	.144	....	....	1	.135	....	....	12	.119
22	.134	8	.141	2	.167	10	.127	9	.143	220	.134
17	.128	9	.112	....	....	14	.129	1	.126	125	.121
126	.124	39	.126	2	.167	52	.133	31	.114	828	.126
9	.105	12	.117	....	....	5	.132	1	.140	126	.120
....	....	....	....	....	....	....	....	....	....	4	.107
2	.134	5	.115	....	....	1	.121	1	.140	72	.130
1	.100	....	....	....	....	....	....	1	.138	21	.117
12	.108	17	.116	....	....	6	.131	3	.139	223	.122
149	.123	61	.125	3	.167	61	.133	37	.119	1,114	.126

TABLE X.—AVERAGE EARNINGS PER HOUR OF EMPLOYEES IN GLASS

B.—FURNACE-ROOM EMPLOYEES: TABLEWARE, SHADES, ETC., EACH STATE—Con.

INDIANA.

Age, sex, and nativity.	Mold boys.		Sticking-up boys.		Carrying-in boys.		Cleaning-off boys.	
	Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.
MALES 21 YEARS AND OVER.								
Native-born of native parents: White			3	$0.118	2	$0.108		
Total			3	.118	2	.108		
MALES 16 TO 20 YEARS.								
Native-born of native parents: White	5	$0.131	31	.120	11	.104		
Native-born of foreign parents					1	.107		
Foreign-born	1	.118			3	.115		
Total	6	.128	31	.120	15	.107		
MALES UNDER 16 YEARS.								
Native-born of native parents: White	1	.183	7	.112	9	.101		
Native-born of foreign parents					2	.107		
Foreign-born					3	.096		
Total	1	.183	7	.112	14	.101		
Grand total	7	.136	41	.118	31	.104		

WEST VIRGINIA.

MALES 21 YEARS AND OVER.								
Native-born of native parents: White	5	$0.136	10	$0.154	8	$0.144	2	$0.133
Native-born of foreign parents			2	.133				
Foreign-born	2	.148			5	.202		
Total	7	.140	12	.151	13	.167	2	.133
MALES 16 TO 20 YEARS.								
Native-born of native parents:								
White	13	.126	79	.138	33	.136	16	.117
Colored					1	.178		
Native-born of foreign parents	1	.118	18	.146	9	.111	3	.119
Foreign-born	4	.132	3	.131	3	.116	1	.122
Total	18	.127	100	.139	46	.131	20	.117
MALES UNDER 16 YEARS.								
Native-born of native parents:								
White	14	.113	51	.134	79	.112	19	.183
Colored	2	.091			2	.099		
Native-born of foreign parents	3	.119	7	.124	18	.114	6	.119
Foreign-born	1	.111	7	.114	13	.099	4	.118
Total	20	.111	65	.130	112	.110	29	.160
Grand total	45	.122	177	.137	171	.120	51	.142

FACTORIES, BY SEX, AGE GROUPS, NATIVITY, AND OCCUPATION—Con.

B.—FURNACE-ROOM EMPLOYEES: TABLEWARE, SHADES, ETC., EACH STATE—Con.

INDIANA.

Cracking-off boys.		Carrying-over boys.		Crimping boys.		Machine boys.		Other occupations.		Total.	
Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.	Number of employees.	Average earnings per hour.
....	....	1	$0.119	12	$0.129	2	$0.144	....	....	20	$0.127
....	....	1	.119	12	.129	2	.144	....	....	20	.127
5	$0.106	3	.120	42	.131	4	.124	....	....	101	.122
....	....	....	....	16	.124	....	....	....	....	17	.123
....	....	....	....	2	.129	....	....	....	....	6	.120
5	.106	3	.120	60	.129	4	.124	....	....	124	.122
3	.106	2	.112	15	.130	....	....	....	....	37	.125
....	....	....	....	5	.129	....	....	....	....	7	.125
....	....	1	.092	....	....	....	....	1	$0.105	5	.095
3	.106	3	.104	20	.126	....	....	1	.105	49	.122
8	.106	7	.113	92	.128	6	.131	1	.105	193	.123

WEST VIRGINIA.

....	....	....	....	6	$0.147	2	$0.134	1	$0.152	34	$0.145
....	....	....	....	....	....	....	....	1	.167	3	.146
....	....	1	$0.079	1	.166	....	....	....	....	9	.176
....	....	1	.079	7	.150	2	.134	2	.159	46	.152
14	$0.117	5	.099	8	.152	16	.167	20	.142	204	.148
....	....	....	....	....	....	....	....	....	....	1	.178
1	.104	3	.085	....	....	....	....	1	.134	36	.153
1	.122	....	....	....	....	1	.115	3	.128	16	.125
16	.117	8	.094	8	.152	17	.164	24	.140	257	.147
14	.117	34	.091	10	.148	23	.138	4	.129	248	.125
....	....	....	....	....	....	....	....	....	....	4	.095
5	.115	11	.094	....	....	1	.133	1	.133	52	.114
4	.114	4	.091	....	....	2	.104	1	.133	36	.107
23	.116	49	.092	10	.148	26	.135	6	.130	340	.120
39	.116	58	.092	25	.150	45	.146	32	.139	643	.133

TABLE X.—AVERAGE EARNINGS PER HOUR OF EMPLOYEES IN GLASS

C.—OTHER THAN FURNACE-ROOM EMPLOYEES: ALL STATES COMBINED.

Age, nativity, and race.	Taking off the leer.				Cutting off by flame.				Grinding by hand.			
	Number of employees.	Average earnings per week.	Average hours worked per week.	Average earnings per hour.	Number of employees.	Average earnings per week.	Average hours worked per week.	Average earnings per hour.	Number of employees.	Average earnings per week.	Average hours worked per week.	Average earnings per hour.
MALES UNDER 16 YEARS.												
Native-born of native parents, white	3	$5.81	42.5	$0.137	5	$5.60	44.0	$0.127	1	$6.00	58.0	$0.103
Native-born of foreign parents:												
French	......	......	......	......	......	......	......	......	1	5.00	58.0	.086
German	3	5.55	46.1	.120	......	......	......	......	1	5.00	58.0	.086
Italian	......	......	......	......	......	......	......	......	......	......	......	......
Slav	1	5.50	49.5	.111	......	......	......	......	1	2.70	41.8	.065
Other races	......	......	......	......	......	......	......	......	......	......	......	......
Total	4	5.54	47.0	.118	......	......	......	......	3	4.23	52.6	.081
Foreign-born:												
Italian	2	4.55	49.0	.093	......	......	......	......	......	......	......	......
Slav	......	......	......	......	1	4.50	58.0	.078	......	......	......	......
Total	2	4.55	49.0	.093	1	4.50	58.0	.078	......	......	......	......
Total males under 16	9	5.41	45.9	.118	6	5.42	46.3	.117	4	4.68	55.0	.087
FEMALES 16 YEARS AND OVER.												
Native-born of native parents, white	26	4.04	46.1	.088	44	5.49	49.1	.112	46	4.84	45.5	.106
Native-born of foreign parents:												
English	1	5.50	60.0	.092	6	4.87	50.7	.096	6	4.85	46.0	.105
French	1	.85	10.0	.085	5	4.75	44.6	.107	4	4.32	50.5	.086
German	5	2.80	41.2	.068	30	5.77	52.1	.111	13	4.65	43.4	.107
Irish	4	4.93	49.0	.101	3	7.76	57.0	.136	5	5.02	47.8	.105
Italian	......	......	......	......	2	4.90	56.8	.086	......	......	......	......
Slav	1	4.00	50.0	.080	7	5.67	61.7	.092	25	3.31	38.9	.085
Other races	......	......	......	......	2	2.98	29.7	.100	3	3.14	39.2	.080
Total	12	3.67	43.5	.084	55	5.54	52.1	.106	56	4.00	42.3	.095
Foreign-born:												
English	......	......	......	......	2	5.87	54.8	.107	1	6.98	46.5	.150
French	1	4.50	58.0	.078	3	3.82	38.0	.100	4	4.33	41.4	.105
German	......	......	......	......	9	5.82	41.5	.140	3	5.68	49.7	.114
Irish	1	5.50	46.4	.119	1	8.30	58.0	.143	......	......	......	......
Italian	......	......	......	......	2	4.98	53.5	.093	3	4.07	54.0	.075
Slav	8	3.59	48.7	.074	7	4.35	54.4	.080	25	4.51	51.9	.087
Other races	1	4.00	58.0	.069	3	3.89	53.3	.073	11	4.55	47.4	.096
Total	11	3.89	50.2	.077	27	5.04	48.2	.104	47	4.60	49.8	092
Total females 16 and over	49	3.91	46.4	.084	126	5.42	50.2	.108	149	4.45	45.7	.097
FEMALES UNDER 16 YEARS.												
Native-born of native parents, white	5	3.54	42.2	.084	2	4.50	58.0	.078	6	3.97	45.6	.087

FACTORIES, BY SEX, AGE GROUPS, NATIVITY, AND OCCUPATION—Con.

C.—OTHER THAN FURNACE-ROOM EMPLOYEES: ALL STATES COMBINED.

Grinding by chuck machine.				Transferring.				Painting and enameling.				Sorting and selecting (bottles and jars).			
Number of employees.	Average earnings per week.	Average hours worked per week.	Average earnings per hour.	Number of employees.	Average earnings per week.	Average hours worked per week.	Average earnings per hour.	Number of employees.	Average earnings per week.	Average hours worked per week.	Average earnings per hour.	Number of employees.	Average earnings per week.	Average hours worked per week.	Average earnings per hour.
......	......	......	......	......	......	......	......	......	......	......	......	4	$4.06	45.8	$0.089
......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	1	$3.50	55.0	$0.064	......	......	......	......	1	4.00	50.0	.080
......	......	......	......	......	......	......	......	......	......	......	......	1	4.00	50.0	.080
......	......	......	......	......	......	......	......	......	......	......	......	1	4.20	60.0	.070
......	......	......	......	......	......	......	......	......	......	......	......	1	5.00	60.0	.083
......	......	......	......	1	3.50	55.0	.064	......	......	......	......	4	4.30	55.0	.078
......	......	......	......	......	......	......	......	......	......	......	......	1	4.00	50.0	.080
......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......	......	1	4.00	50.0	.080
......	......	......	......	1	3.50	55.0	.064	......	......	......	......	9	4.16	50.3	.083
16	$7.28	49.8	$0.146	29	4.53	44.9	.101	116	$5.66	48.8	$0.116	113	5.22	51.6	.101
2	6.38	54.4	.117	3	3.66	34.7	.106	14	5.11	54.0	.095	1	2.00	19.0	.105
......	......	......	......	2	3.07	37.0	.083	1	7.50	44.0	.170	......	......	......	......
8	8.58	54.7	.157	9	4.83	42.7	.113	45	6.68	53.6	.125	5	5.97	53.6	.111
3	6,62	42.1	.157	6	5.34	49.8	.107	15	9.32	53.8	.136	4	6.43	57.9	.111
......	......	......	......	1	2.70	25.0	.108	2	9.50	59.0	.161	......	......	......	......
3	9.13	56.3	.162	2	6.00	59.0	.102	3	3.99	57.8	.069	26	5.37	48.5	.111
......	......	......	......	3	3.44	33.0	.104	4	4.58	54.0	.085	......	......	......	......
16	8.04	52.6	.153	26	4.53	42.4	.107	84	6.41	53.9	.119	36	5.48	49.4	.111
......	......	......	......	3	4.60	56.5	.081	3	7.93	48.8	.162	2	8.70	55.3	.157
3	7.71	57.3	.135	1	4.50	58.0	.078	3	9.17	58.0	.158	......	......	......	......
10	6.67	53.0	.126	9	4.60	43.7	.105	8	8.24	50.9	.162	......	......	......	......
......	......	......	......	......	......	......	......	2	5.55	43.8	.127	1	1.50	20.0	.075
......	......	......	......	3	5.92	61.3	.097	......	......	......	......	......	......	......	......
1	9.70	56.3	.172	8	5.26	61.5	.085	5	4.07	54.4	.075	6	4.80	47.1	.102
2	6.40	55.0	.116	2	3.23	29.5	.109	4	7.96	54.0	.147	......	......	......	......
16	7.02	54.2	.129	26	4.85	52.1	.093	25	7.22	52.4	.139	9	5.30	45.9	.116
48	7.45	52.2	.143	81	4.63	46.4	.100	225	6.11	51.1	.120	158	5.28	50.8	.104
......	......	......	......	7	3.39	48.9	.069	6	4.45	55.7	.080	13	4.38	48.9	.089

TABLE X.—AVERAGE EARNINGS PER HOUR OF EMPLOYEES IN GLASS

C.—OTHER THAN FURNACE-ROOM EMPLOYEES: ALL STATES COMBINED—Continued

Age, nativity, and race.	Taking off the leer.				Cutting off by flame.				Grinding by hand.			
	Number of employees.	Average earnings per week.	Average hours worked per week.	Average earnings per hour.	Number of employees.	Average earnings per week.	Average hours worked per week.	Average earnings per hour.	Number of employees.	Average earnings per week.	Average hours worked per week.	Average earnings per hour.
FEMALES UNDER 16 YEARS—concluded.												
Native-born of foreign parents:												
English	1	$2.35	34.0	$0.069	......	......	......	......	1	$3.55	53.0	$0.067
French	......	......	......	......	1	$3.60	41.5	$0.087	......	......	......	......
German	......	......	......	......	3	3.97	52.7	.076	2	2.65	35.9	.074
Irish	......	......	......	......	......	......	......	......	......	......	......	......
Italian	1	4.00	58.0	.069	......	......	......	......	......	......	......	......
Slav	......	......	......	......	12	2.82	44.5	.063	10	3.05	33.3	.092
Other races	1	4.00	58.0	.069	2	3.85	43.5	.089	......	......	......	......
Total	3	3.45	50.0	.069	18	3.17	45.5	.070	13	3.03	35.2	.086
Foreign-born:												
English	......	......	......	......	......	......	......	......	1	3.55	53.0	.067
French	1	3.00	40.0	.075	1	5.00	58.0	.086	......	......	......	......
German	......	......	......	......	......	......	......	......	......	......	......	......
Slav	......	......	......	......	4	2.58	43.9	.059	......	......	......	......
Total	1	3.00	40.0	.075	5	3.07	46.7	.066	1	3.55	53.0	.067
Total females under 16	9	3.45	44.5	.077	25	3.25	46.8	.070	20	3.34	39.2	.085
Grand total	67	4.05	46.1	.088	157	5.07	49.5	.102	173	4.33	45.2	.095

Age, nativity, and race.	Packing (bottles and jars).				Sorting and selecting (tableware and shades).				Wrapping and packing (tableware and shades).			
	Number of employees.	Average earnings per week.	Average hours worked per week.	Average earnings per hour.	Number of employees.	Average earnings per week.	Average hours worked per week.	Average earnings per hour.	Number of employees.	Average earnings per week.	Average hours worked per week.	Average earnings per hour.
MALES UNDER 16 YEARS.												
Native-born of native parents:												
White	......	......	......	......	2	$6.19	55.0	$0.113	3	$3.10	40.8	$0.076
Colored	......	......	......	......	......	......	......	......	......	......	......	......
Native-born of foreign parents:												
English	......	......	......	......	......	......	......	......	......	......	......	......
French	......	......	......	......	......	......	......	......	1	5.00	58.0	.086
German	......	......	......	......	......	......	......	......	......	......	......	......
Irish	......	......	......	......	......	......	......	......	3	3.10	51.7	.060
Italian	......	......	......	......	......	......	......	......	......	......	......	......
Slav	......	......	......	......	......	......	......	......	......	......	......	......
Other races	......	......	......	......	......	......	......	......	......	......	......	......
Total	......	......	......	......	......	......	......	......	4	3.58	53.3	.067
Foreign-born:												
French	......	......	......	......	......	......	......	......	......	......	......	......
German	......	......	......	......	......	......	......	......	......	......	......	......
Italian	......	......	......	......	......	......	......	......	......	......	......	......
Slav	......	......	......	......	......	......	......	......	......	......	......	......
Other races	......	......	......	......	......	......	......	......	1	4.80	57.3	.084
Total	......	......	......	......	......	......	......	......	1	4.80	57.3	.084
Total males under 16	......	......	......	......	2	6.19	55.0	.113	8	3.55	49.1	.072

FACTORIES, BY SEX, AGE GROUPS, NATIVITY, AND OCCUPATION—Con.

C.—OTHER THAN FURNACE-ROOM EMPLOYEES: ALL STATES COMBINED—Continued.

Grinding by chuck machine.				Transferring.				Painting and enameling.				Sorting and selecting (bottles and jars).			
Number of employees.	Average earnings per week.	Average hours worked per week.	Average earnings per hour.	Number of employees.	Average earnings per week.	Average hours worked per week.	Average earnings per hour.	Number of employees.	Average earnings per week.	Average hours worked per week.	Average earnings per hour.	Number of employees.	Average earnings per week.	Average hours worked per week.	Average earnings per hour.
......	......	......	......	......	......	......	......	......	......	......	......	1	$5.38	43.7	0$.123
......	......	......	......	1	$4.50	59.0	0$.076	......	......	......	......	......	......	......	......
......	......	......	......	2	2.77	32.5	.085	1	$4.85	33.4	$0.145	1	4.50	53.0	.084
......	......	......	......	......	......	......	......	......	......	......	......	1	4.15	55.0	.075
......	......	......	......	1	4.50	58.0	.078	......	......	......	......	......	......	......	......
......	......	......	......	2	4.75	58.0	.082	1	3.89	54.0	.072	......	......	......	......
......	......	......	......	1	2.93	24.0	.122	1	3.68	55.0	.067	......	......	......	......
......	......	......	......	7	3.85	46.0	.084	3	4.14	47.5	.087	3	4.68	50.6	.092
......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	1	2.63	40.0	.066	......	......	......	......	......	......	......	......
......	......	......	......	3	3.09	46.0	.067	......	......	......	......	......	......	......	......
......	......	......	......	4	2.97	44.5	.067	......	......	......	......	......	......	......	......
......	......	......	......	18	3.48	46.8	.074	9	4.35	52.9	.082	16	4.43	49.3	.090
48	$7.45	52.2	$0.143	100	4.41	46.6	.095	234	6.04	51.2	.119	183	5.15	50.6	.102

Washing and wiping.				Miscellaneous.				Total.			
Number of employees.	Average earnings per week.	Average hours worked per week.	Average earnings per hour.	Number of employees.	Average earnings per week.	Average hours worked per week.	Average earnings per hour.	Number of employees.	Average earnings per week.	Average hours worked per week.	Average earnings per hour.
1	$4.00	58.0	$0.069	28	$4.14	44.9	$0.092	47	$4.45	45.4	$0.098
......	......	......	......	1	5.00	50.0	.100	1	5.00	50.0	.100
1	3.45	29.0	.119	4	4.96	53.1	.093	5	4.65	48.3	.096
1	5.00	58.0	.086	2	5.13	60.5	.085	5	5.05	59.0	.086
......	......	......	......	15	4.45	48.2	.092	21	4.57	48.8	.094
1	4.50	55.0	.082	......	......	......	......	4	3.45	52.5	.066
......	......	......	......	3	2.12	35.0	.061	4	2.59	38.8	.067
......	......	......	......	7	4.11	51.2	.080	10	4.12	51.0	.081
......	......	......	......	4	3.18	36.5	.087	5	3.55	41.2	.086
3	4.32	47.3	.091	35	4.14	47.6	.087	54	4.21	48.9	.086
......	......	......	......	2	5.25	54.5	.096	2	5.25	54.5	.096
......	......	......	......	1	5.75	63.0	.091	1	5.75	63.0	.091
......	......	......	......	3	5.00	49.5	.101	6	4.68	49.4	.095
......	......	......	......	1	2.75	29.0	.095	2	3.63	43.5	.083
......	......	......	......	2	3.67	49.0	.075	3	4.04	51.8	.078
......	......	......	......	9	4.59	49.7	.092	14	4.55	50.8	.090
4	4.24	50.0	.085	73	4.20	46.9	.090	116	4.36	47.7	.091

TABLE X.—AVERAGE EARNINGS PER HOUR OF EMPLOYEES IN GLASS

C.—OTHER THAN FURNACE-ROOM EMPLOYEES: ALL STATES COMBINED—Concluded.

Age, nativity, and race.	Packing (bottles and jars).				Sorting and selecting (tableware and shades).				Wrapping and packing (tableware and shades).			
	Number of employees.	Average earnings per week.	Average hours worked per week.	Average earnings per hour.	Number of employees.	Average earnings per week.	Average hours worked per week.	Average earnings per hour.	Number of employees.	Average earnings per week.	Average hours worked per week.	Average earnings per hour.
FEMALES 16 YEARS OF AGE AND OVER.												
Native-born of native parents:												
White	147	$4.56	49.6	$0.092	229	$4.56	53.7	$0.085	150	$4.40	51.1	$0.086
Colored	......	......	......	......	......	......	......	......	......	......	......	......
Native-born of foreign parents:												
English	4	4.21	36.5	.115	16	4.61	54.6	.084	14	4.79	55.6	.086
French	2	5.38	54.5	.099	10	4.44	54.0	.082	7	4.76	55.4	.086
German	16	5.18	49.3	.105	62	4.83	50.3	.096	37	4.36	54.0	.081
Irish	17	5.67	49.4	.115	47	5.19	55.5	.094	24	4.56	51.3	.089
Italian	......	......	......	......	1	5.00	58.0	.086	2	3.73	47.0	.079
Slav	1	2.13	25.0	.085	13	3.74	50.7	.074	17	3.59	48.0	.075
Other races	4	5.73	54.5	.105	14	4.62	49.3	.094	8	4.35	53.2	.082
Total	44	5.27	48.3	.109	163	4.78	52.4	.091	109	4.36	52.6	.083
Foreign-born:												
English	......	......	......	......	6	4.63	53.4	.087	10	4.71	56.4	.084
French	1	2.10	25.0	.084	6	5.37	59.4	.090	6	5.24	55.8	.094
German	2	5.00	55.9	.089	10	4.47	49.2	.091	7	6.39	53.5	.119
Irish	......	......	......	......	5	7.24	60.6	.119	2	5.88	61.3	.096
Italian	......	......	......	......	1	5.00	58.0	.086	3	3.75	54.3	.069
Slav	2	4.07	39.0	.104	7	5.38	62.6	.086	12	4.00	53.0	.075
Other races	1	6.00	53.0	.113	1	2.00	20.0	.100	4	3.40	39.9	.086
Total	6	4.37	44.6	.098	36	5.15	55.2	.093	44	4.72	53.5	.088
Total females 16 and over	197	4.71	49.1	.096	428	4.69	53.4	.088	303	4.43	52.0	.085
FEMALES UNDER 16 YEARS.												
Native-born of native parents:												
White	9	4.04	52.5	.077	20	3.91	55.6	.070	37	3.46	48.3	.072
Colored	......	......	......	......	......	......	......	......	......	......	......	......
Native-born of foreign parents:												
English	......	......	......	......	2	4.75	58.4	.081	5	3.40	49.4	.069
French	......	......	......	......	2	4.09	56.5	.072	7	3.61	48.6	.074
German	2	5.50	53.5	.103	8	4.11	56.6	.073	13	3.67	53.3	.069
Irish	......	......	......	......	......	......	......	......	2	3.45	48.5	.071
Italian	......	......	......	......	1	2.00	40.0	.050	......	......	......	......
Slav	......	......	......	......	6	2.54	39.8	.064	9	3.38	52.6	.064
Other races	......	......	......	......	1	5.00	58.0	.086	3	2.55	42.0	.061
Total	2	5.50	53.5	.103	20	3.64	51.0	.071	39	3.46	50.7	.068
Foreign-born:												
English	......	......	......	......	......	......	......	......	1	4.00	58.0	.069
French	......	......	......	......	......	......	......	......	4	3.95	55.3	.071
German	......	......	......	......	......	......	......	......	1	4.25	55.5	.077
Italian	......	......	......	......	1	4.50	58.0	.078	2	4.07	56.5	.072
Slav	......	......	......	......	1	4.00	58.0	.069	3	3.25	47.3	.069
Other races	......	......	......	......	......	......	......	......	......	......	......	......
Total	......	......	......	......	2	4.25	58.0	.073	11	3.81	53.6	.071
Total females under 16	11	4.31	52.7	.082	42	3.80	53.5	.071	87	3.50	50.4	.070
Grand total	208	4.69	49.3	.095	472	4.62	53.4	.087	398	4.21	51.6	.081

FACTORIES, BY SEX. AGE GROUPS, NATIVITY, AND OCCUPATION—Concl.

C.—OTHER THAN FURNACE-ROOM EMPLOYEES: ALL STATES COMBINED—Concluded.

Washing and wiping.				Miscellaneous.				Total.			
Number of employees.	Average earnings per week.	Average hours worked per week.	Average earnings per hour.	Number of employees.	Average earnings per week.	Average hours worked per week.	Average earnings per hour.	Number of employees.	Average earnings per week.	Average hours worked per week.	Average earnings per hour.
109	$3.61	42.1	$0.086	467	$4.67	49.2	$0.095	1,492	$4.70	49.5	$0.095
				8	4.42	48.4	.091	8	4.42	48.4	.091
1	1.70	20.5	.083	16	4.87	53.2	.091	84	4.74	51.2	.093
				14	5.10	52.6	.097	46	4.68	50.5	.093
33	4.20	50.7	.083	90	5.41	50.9	.106	353	5.27	51.0	.103
18	4.33	49.2	.088	48	5.86	50.3	.117	194	5.49	51.8	.106
2	3.50	42.5	.082	4	3.34	47.5	.070	14	4.59	48.8	.094
13	3.48	54.4	.064	38	4.82	51.3	.094	149	4.41	49.2	.090
2	2.14	37.5	.057	12	4.96	53.7	.092	52	4.43	48.9	.090
69	3.98	50.0	.080	222	5.28	51.2	.103	892	5.03	50.7	.099
1	2.90	42.3	.069	9	5.05	47.6	.106	37	5.32	52.4	.102
1	1.40	18.7	.075	9	6.02	56.5	.107	38	5.52	52.2	.106
9	3.88	49.9	.078	27	5.08	49.6	.102	94	5 48	49.1	.111
1	4.58	50.0	.092	6	5.51	46.5	.118	19	5.89	50.9	.116
5	4.86	52.6	.092	7	5.21	57.1	.091	24	4.87	55.7	.087
17	4.23	53.8	.079	31	5.05	55.8	.091	129	4.61	54.0	.085
5	4.28	53.5	.080	7	5.04	48.8	.103	41	4.76	47.9	.099
39	4.14	51.4	.081	96	5.19	52 4	099	382	5.08	51.8	.098
217	3.82	46.3	.083	793	4.90	50.1	.098	2,774	4.86	50.2	.097
40	3.69	48.7	.076	53	3.97	50.4	.079	198	3.83	50.0	.077
1	1.50	30.0	.050	1	3.21	55.0	.058	2	2.36	42.5	.055
1	1.75	35.0	.050	3	4.29	55.7	.077	14	3.74	49.7	.075
				1	3.50	53.0	.066	12	3.75	50.6	.074
14	4.08	49.8	.082	29	3.87	50.3	.077	75	3.91	50.5	.077
7	3.19	57.9	.055	1	3.00	58.0	.052	11	3.31	56.0	.059
				3	3.96	52.5	.075	6	3.73	52.3	.071
31	2.47	45.1	.055	29	3.42	47.6	.072	100	2.99	45.3	.066
1	4.70	56.3	.083	3	3.82	47.7	.080	13	3.62	36.2	.078
54	3.01	48.0	.063	69	3.69	49.5	.074	231	3.44	48.3	.071
								2	3.78	55.5	.068
1	4.00	59.0	.068	4	4.18	56.4	.074	11	4.05	54.9	.074
1	3.90	51.0	.076	5	3.30	42.7	.077	8	3.41	45.0	.076
								3	4.21	57.0	.074
7	3.51	56.9	.062	5	3.75	52.8	.071	23	3.33	51.1	.065
1	1.90	31.3	.061	2	3.71	55.0	.067	3	3.11	47.1	.066
10	3.44	54.0	.064	16	3.71	50.8	.073	50	3.56	51.3	.069
105	3.29	48.6	.068	139	3.79	50.1	.076	481	3.61	49.3	.073
326	3.65	47.1	.078	1,005	4.70	49.9	.094	3,371	4.66	50.0	.093

TABLE XI.—COMPOSITION OF FAMILIES AND CONDITION AS TO EMPLOYMENT.

This table shows for certain groups of States and for all States combined the composition of families and condition of members as to employment, for representative families having one or more women or children employed in the glass factories covered by this investigation. From the list of employees as taken from the pay rolls of the establishments investigated, the names of a certain number of typical woman and child employees of various ages were selected and visits made to the homes. There were secured schedules with detailed information in regard to the individual workers and their families. In getting this information in the homes an endeavor was made to secure schedules representing all the children under 16 employed in the factories investigated, and also for one-third of the woman workers. In a few cases, however, establishments were investigated for the woman and child employees of which, on account of lack of time, no schedules were secured. A sufficient number of schedules were secured, however, to fully represent the home conditions of woman and child employees in the glass industry. Of this detailed information the present table includes that in regard to the composition of the families and the condition as to employment of certain groups of members.

In presenting these facts, the States have been divided into three groups. The first group includes Pennsylvania, New Jersey, and West Virginia; the second group includes New York, Ohio, Indiana, Illinois, Wisconsin, and Missouri; and the third group includes Maryland, Virginia, Tennessee, South Carolina, and Georgia. There are two reasons for presenting the facts grouped in this manner. First, in some of the States the number of schedules secured was so small that a presentation of each State separately would not be satisfactory. In the second place, the conditions of child labor and the attitude of employers to the same was found to be somewhat similar within each one of these groups. The families are shown according to nativity, as native of native parents, native of foreign parents, and foreign born, and for all nativities combined. Each of the three separate groups is divided according to race.

Referring to that part of the table relating to the first group, that is, Pennsylvania, New Jersey, and West Virginia, it will be seen that the number of families studied in that group was 1,358, of which 494 were native of native parents, 158 native of foreign parents, and 706 foreign born. Of the families whose heads were native of native parents, all but 6 were white. Of the families with foreign-born heads, the largest number, namely, 176, were German. In 1,037 of the families, constituting 76.4 per cent of the entire number, the father was at work. The percentage of families with father at work, not including two instances in which only 1 family was represented, varied from 66.6 per cent in the 15 native-born English families to 95.4 per cent in the 44 foreign-born South Italian families. In 61 families the father was idle or incapacitated, and in 260 families, or 19.1 per cent of the entire number, the father was dead, a deserter, or away. For the mothers, in like manner, information is presented as to the number and per cent at home, at work, and dead or away. The facts are also given for the other members of the family grouped into the following classes: Male members of the family (excluding father) 16 years of age and over, female members of the family (excluding mother) 16 years of age and over, children 14 and 15 years of age, children under 14 years of age, other nonwage-earners, and for the whole family.

In each of these groups or classes there may be, and in some cases are, persons who are not members of the natural family (that is, sons or daughters of the head of the family), as nephews, nieces, sisters, or brothers of the head of the family, etc., who are living in all respects as one of the family and if at work turning all their earnings into the family fund.

All of these facts are shown in a similar way for each of the groups of States mentioned and also for all States combined.

TABLE XI.—COMPOSITION OF FAMILIES AND CONDITION OF MEMBERS AND FOR ALL

PENNSYLVANIA, NEW JERSEY, WEST VIRGINIA.

Marginal number.	Composition of families and condition of members as to employment.		Nativity and race of head of family.									
			Native of native parents.		Native of foreign parents.							
			White.	Colored.	English.	French.	German.	Irish.	Italian, South.	Polish.	Other races.	Total.
1	Total number of families....		488	6	15	5	88	48	1	......	1	158
	Fathers:											
2	Families having father at work.	Number..	351	5	10	4	72	38	1	......	1	126
		Per cent..	71.9	83.3	66.6	80.0	81.8	79.2	100.0	......	100.0	79.8
3	Families having father idle or incapacitated.	Number..	20	......	1	......	1	2	......	......	......	4
		Per cent..	4.1	......	6.7	......	1.2	4.1	......	......	......	2.5
4	Families having father dead, deserter, or away.	Number..	117	1	4	1	15	8	......	......	......	28
		Per cent..	24.0	16.7	26.7	20.0	17.0	16.7	......	......	......	17.7
	Mothers:											
5	Families having mother at home.	Number..	403	5	11	5	81	35	1	......	1	134
		Per cent..	82.6	83.3	73.3	100.0	92.0	72.9	100.0	......	100.0	84.8
6	Families having mother at work.	Number..	71	1	4	......	7	10	......	......	......	21
		Per cent..	14.5	16.7	26.7	......	8.0	20.8	......	......	......	13.3
7	Families having mother dead or away.	Number..	14	......	......	......	......	3	......	......	......	3
		Per cent..	2.9	......	......	......	......	6.3	......	......	......	1.9
	Male members of family (excluding father) 16 years of age and over:											
8	Number of families having.		241	4	6	2	39	20	1	......	1	69
9	Number of such persons.		327	6	8	3	56	32	1	......	3	103
10	Average number per family.		1.4	1.5	1.3	1.5	1.4	1.6	1.0	......	3.0	1.5
11	At work.....	Number..	321	6	7	3	53	28	1	......	3	95
		Per cent..	98.2	100.0	87.5	100.0	94.6	87.5	100.0	......	100.0	92.2
	Female members of family (excluding mother) 16 years of age and over:											
12	Number of families having.		270	1	10	4	49	25	......	......	1	89
13	Number of such persons.		377	1	15	5	64	34	......	......	1	119
14	Average number per family.		1.4	1.0	1.5	1.3	1.3	1.4	......	......	1.0	1.3
15	At work.....	Number..	285	......	13	5	48	28	......	......	1	95
		Per cent..	75.6	......	86.7	100.0	75.0	82.4	......	......	100.0	79.8
	Children 14 and 15 years of age:											
16	Number of families having.		384	6	7	2	70	39	1	......	......	119
17	Number of such persons.		434	6	9	2	80	41	1	......	......	133
18	Average number per family.		1.1	1.0	1.3	1.0	1.1	1.1	1.0	......	......	1.1
19	At school....	Number..	25	......	1	......	7	2	......	......	......	10
		Per cent..	5.8	......	11.1	......	8.7	4.9	......	......	......	7.5
20	At home.....	Number..	16	1	2	......	4	4	......	......	......	10
		Per cent..	3.7	16.7	22.2	......	5.0	9.7	......	......	......	7.5
21	At work.....	Number..	393	5	6	2	69	35	1	......	......	113
		Per cent..	90.5	83.3	66.7	100.0	86.3	85.4	100.0	......	......	85.0
	Children under 14 years of age:											
22	Number of families having.		377	5	10	3	75	37	1	......	1	127
23	Number of such persons.		1,032	12	26	4	212	122	1	......	4	369
24	Average number per family.		2.7	2.4	2.6	1.3	2.8	3.3	1.0	......	4.0	2.9
25	At school....	Number..	599	6	15	3	133	74	......	......	1	226
		Per cent..	58.0	50.0	57.7	75.0	62.8	60.7	......	......	25.0	61.3
26	At home.....	Number..	362	4	9	1	73	43	1	......	3	130
		Per cent..	35.1	33.3	34.6	25.0	34.4	35.2	100.0	......	75.0	35.2
27	At work.....	Number..	71	2	2	......	6	5	......	......	......	13
		Per cent..	6.9	16.7	7.7	......	2.8	4.1	......	......	......	3.5

AS TO EMPLOYMENT, BY NATIVITY AND RACE, FOR GROUPS OF STATES STATES COMBINED.

PENNSYLVANIA, NEW JERSEY, WEST VIRGINIA.

Nativity and race of head of family.										Marginal number.
Foreign-born.									Total all nativities.	
English.	French.	German.	Irish.	Italian, South.	Polish.	Other Slavs.	Other races.	Total.		
51	49	176	84	44	171	93	38	706	1,358	1
40 78.4	43 87.7	119 67.6	57 67.9	42 95.4	147 86.0	77 82.8	30 79.0	555 78.6	1,037 76.4	2
4 7.9	2 4.1	13 7.4	5 5.9	1 2.3	5 2.9	6 6.4	1 2.6	37 5.2	61 4.5	3
7 13.7	4 8.2	44 25.0	22 26.2	1 2.3	19 11.1	10 10.8	7 18.4	114 16.2	260 19.1	4
45 88.2	41 83.7	153 86.9	71 84.5	36 81.8	164 95.9	88 94.6	32 84.2	630 89.2	1,172 86.3	5
5 9.8	5 10.2	20 11.4	10 11.9	6 13.6	5 2.9	4 4.3	6 15.8	61 8.7	154 11.3	6
1 2.0	3 6.1	3 1.7	3 3.6	2 4.6	2 1.2	1 1.1	....	15 2.1	32 2.4	7
25	20	95	37	11	76	41	20	325	639	8
35	24	141	62	14	108	51	30	465	901	9
1.4	1.2	1.5	1.7	1.3	1.4	1.2	1.5	1.4	1.4	10
33 94.3	24 100.0	140 99.3	62 100.0	14 100.0	105 97.2	44 86.3	30 100.0	452 97.3	874 97.0	11
28	31	125	45	14	76	43	14	376	736	12
45	41	173	68	17	95	54	17	510	1,007	13
1.6	1.3	1.4	1.5	1.2	1.3	1.3	1.2	1.4	1.4	14
36 80.0	34 87.8	148 85.5	53 77.9	12 70.6	75 78.9	47 87.0	12 70.6	417 81.8	797 79.1	15
38	37	130	69	37	141	79	34	565	1,074	16
46	42	145	73	45	164	94	42	651	1,224	17
1.2	1.1	1.1	1.1	1.2	1.2	1.2	1.2	1.2	1.1	18
4 8.7	1 2.4	15 10.4	3 4.1	2 4.4	8 4.9	4 4.3	3 7.1	40 6.1	75 6.1	19
....	1 2.4	6 4.1	2 2.7	2 4.4	4 2.4	....	....	15 2.3	42 3.4	20
42 91.3	40 95.2	124 85.5	68 93.2	41 91.2	152 92.7	90 95.7	39 92.9	596 91.6	1,107 90.5	21
41	32	127	62	37	147	84	31	561	1,070	22
112	69	369	215	133	484	259	98	1,739	3,152	23
2.7	2.2	2.9	3.5	3.6	3.3	3.1	3.2	3.1	2.9	24
67 59.8	52 75.4	239 64.8	146 67.9	66 49.6	264 54.5	131 50.6	52 53.1	1,017 58.5	1,848 58.6	25
41 36.6	16 23.2	119 32.2	61 28.4	60 45.1	209 43.2	117 45.2	43 43.9	666 38.3	1,162 36.9	26
4 3.6	1 1.4	11 3.0	8 3.7	7 5.3	11 2.3	11 4.2	3 3.0	56 3.2	142 4.5	27

TABLE XI.—COMPOSITION OF FAMILIES AND CONDITION OF MEMBERS AND FOR ALL STATES

PENNSYLVANIA, NEW JERSEY, WEST VIRGINIA—Concluded.

Marginal number.	Composition of families and condition of members as to employment.	Nativity and race of head of family.									
		Native of native parents.		Native of foreign parents.							
		White.	Colored.	English.	French.	German.	Irish.	Italian, South.	Polish.	Other races.	Total
	Other nonwage-earners:										
28	Number of families having.	19	......	......	1	2	5	......	......	......	8
29	Number of such persons.	21	......	......	1	2	6	......	......	......	9
30	Average number per family.	1.1	......	......	1.0	1.0	1.2	......	......	......	1.1
	Natural family:										
31	Total number of persons.	3,036	36	84	24	575	320	5	......	10	1,018
32	Average number per family.	6.2	6.0	5.6	4.8	6.5	6.7	5.0	......	10.0	6.4
33	Total number of wage-earners.	1,492	19	42	14	255	144	3	......	5	463
34	Average number per family.	3.1	3.2	2.8	2.8	2.9	3.0	3.0	......	5.0	2.9
	Boarders and lodgers not members of family:										
35	Number of families having.	40	3	1	....	8	3	......	......	......	12
36	Number of such boarders and lodgers.	68	3	1	....	14	6	......	......	......	21
37	Average number per family.	1.7	1.0	1.0	....	1.8	2.0	......	......	......	1.8
	The household:										
38	Total number of persons.	3,104	39	85	24	589	326	5	......	10	1,039
39	Average number per family.	6.4	6.5	5.7	4.8	6.7	6.8	5.0	......	10.0	6.6

NEW YORK, OHIO, INDIANA, ILLINOIS, WISCONSIN, MISSOURI.

Marginal number.	Composition of families and condition of members as to employment.		White.	Colored.	English.	French.	German.	Irish.	Italian, South.	Polish.	Other races.	Total
1	Total number of families....		255	57	10	3	53	28	....	1	1	96
	Fathers:											
2	Families having father at work.	Number..	199	37	8	2	45	19	....	1	1	76
		Per cent..	78.0	64.9	80.0	66.7	84.9	67.8	....	100.0	100.0	79.1
3	Families having father idle or incapacited.	Number..	3	1	......	....	1	3	....	......	......	4
		Per cent..	1.2	1.8	......	....	1.9	10.7	....	......	......	4.2
4	Families having father dead, deserter, or away.	Number..	53	19	2	1	7	6	....	......	......	16
		Per cent..	20.8	33.3	20.0	33.3	13.2	21.4	....	......	......	16.7
	Mothers:											
5	Families having mother at home.	Number..	207	17	7	3	45	24	....	1	1	81
		Per cent..	81.2	29.8	70.0	100.0	84.9	85.7	....	100.0	100.0	84.4
6	Families having mother at work.	Number..	40	39	3	....	7	4	....	......	......	14
		Per cent..	15.7	68.4	30.0	....	13.2	14.3	....	......	......	14.6
7	Families having mother dead or away.	Number..	8	1	......	....	1	......	....	......	......	1
		Per cent..	3.1	1.8	......	....	1.9	......	....	......	......	1.0
	Male members of family (excluding fathers) 16 years of age and over:											
8	Number of families having.		115	16	2	1	22	11	....	......	......	36
9	Number of such persons.		163	20	5	1	33	17	....	......	......	56
10	Average number per family.		1.4	1.3	2.5	1.0	1.5	1.5	....	......	......	1.6
11	At work.....	Number..	157	19	5	....	31	14	....	......	......	50
		Per cent..	96.3	95.0	100.0	....	93.9	82.4	....	......	......	89.3

AS TO EMPLOYMENT, BY NATIVITY AND RACE, FOR GROUPS OF STATES COMBINED—Continued.

PENNSYLVANIA, NEW JERSEY, WEST VIRGINIA—Concluded.

Nativity and race of head of family.										Marginal number.
Foreign-born.									Total all nativities.	
English.	French.	German.	Irish.	Italian, South.	Polish.	Other Slavs.	Other races.	Total.		
4	....	4	2	2	5	1	....	18	45	28
4	....	5	2	2	5	1	....	19	49	29
1.0	....	1.3	1.0	1.0	1.0	1.0	....	1.1	1.1	30
336	267	1,138	563	296	1,177	634	256	4,667	8,757	31
6.6	5.4	6.5	6.7	6.7	6.9	6.8	6.7	6.6	6.4	32
160	147	562	258	122	495	273	120	2,137	4,111	33
3.1	3.0	3.2	3.1	2.8	2.9	2.9	3.2	3.0	3.0	34
3	4	12	6	7	17	9	2	60	115	35
3	6	20	11	13	21	27	6	107	199	36
1.0	1.5	1.7	1.8	1.9	1.2	3.0	3.0	1.8	1.7	37
339	273	1,158	574	309	1,198	661	262	4,774	8,956	38
6.7	5.6	6.6	6.8	7.0	7.0	7.0	6.9	6.8	6.6	39

NEW YORK, OHIO, INDIANA, ILLINOIS, WISCONSIN, MISSOURI.

25	10	110	32	6	37	42	16	278	686	1
18	10	70	16	5	36	42	14	211	523	2
72.0	100.0	63.6	50.0	83.3	97.3	100.0	87.5	75.9	76.3	
1	....	10	7	....	1	....	....	19	27	3
4.0	....	9.1	21.9	....	2.7	....	....	6.8	3.9	
6	....	30	9	1	....	....	2	48	136	4
24.0	....	27.3	28.1	16.7	....	....	12.5	17.3	19.8	
23	10	97	26	4	33	42	15	250	555	5
92.0	100.0	88.2	81.3	66.6	89.2	100.0	93.7	90.0	80.9	
2	....	12	4	1	2	....	....	21	114	6
8.0	....	10.9	12.5	16.7	5.4	....	....	7.5	16.6	
....	....	1	2	1	2	....	1	7	17	7
....	....	0.9	6.2	16.7	5.4	....	6.3	2.5	2.5	
12	4	62	23	3	16	22	6	148	315	8
15	8	94	37	3	29	25	8	219	458	9
1.3	2.0	1.5	1.6	1.0	1.8	1.1	1.3	1.5	1.5	10
14	7	91	36	3	28	24	8	211	437	11
93.3	87.5	96.8	97.3	100.0	96.6	96.0	100.0	96.3	95.4	

TABLE XI.—COMPOSITION OF FAMILIES AND CONDITION OF MEMBERS AND FOR ALL STATES

NEW YORK, OHIO, INDIANA, ILLINOIS, WISCONSIN, MISSOURI—Concluded.

Marginal number.	Composition of families and condition of members as to employment.	Nativity and race of head of family.									
		Native of native parents.		Native of foreign parents.							
		White.	Colored.	English.	French.	German.	Irish.	Italian, South.	Polish.	Other races.	Total.
	Female members of family (excluding mothers) 16 years of age and over:										
12	Number of families having.	118	26	2	2	24	13	......	......	......	41
13	Number of such persons.	181	36	2	3	30	20	......	......	......	55
14	Average number per family.	1.5	1.4	1.0	1.5	1.3	1.5	......	......	......	1.3
15	At work.....Number..	156	31	2	2	22	16	......	......	......	42
	At work.....Per cent..	86.2	86.1	100.0	66.7	73.3	80.0	......	......	......	76.4
	Children 14 and 15 years of age:										
16	Number of families having.	195	25	10	3	48	22	......	1	1	85
17	Number of such persons.	208	29	12	3	53	24	......	1	1	94
18	Average number per family.	1.1	1.2	1.2	1.0	1.1	1.1	......	1.0	1.0	1.1
19	At school....Number..	17	4	1	......	5	4	......	......	......	10
	At school....Per cent..	8.2	13.8	8.3	......	9.4	16.7	......	......	......	10.6
20	At home.....Number..	3	1	......	......	5	......	......	......	......	5
	At home.....Per cent..	1.4	3.4	......	......	9.4	......	......	......	......	5.3
21	At work.....Number..	188	24	11	3	43	20	......	1	1	79
	At work.....Per cent..	90.4	82.8	91.7	100.0	81.2	83.3	......	100.0	100.0	84.1
	Children under 14 years of age:										
22	Number of families having.	181	33	10	3	36	20	......	1	1	71
23	Number of such persons.	464	86	29	8	97	51	......	3	3	191
24	Average number per family.	2.6	2.6	2.9	2.7	2.7	2.6	......	3.0	3.0	2.7
25	At school....Number..	306	51	20	7	64	34	......	2	2	129
	At school....Per cent..	66.0	59.3	69.0	87.5	66.0	66.7	......	66.7	66.7	67.6
26	At home.....Number..	155	34	9	1	32	17	......	1	1	61
	At home.....Per cent..	33.4	39.5	31.0	12.5	33.0	33.3	......	33.3	33.3	31.9
27	At work.....Number..	3	1	......	......	1	......	......	......	......	1
	At work.....Per cent..	0.6	1.2	......	......	1.0	......	......	......	......	0.5
	Other nonwage-earners:										
28	Number of families having.	6	3	......	......	2	......	......	......	......	2
29	Number of such persons.	6	3	......	......	2	......	......	......	......	2
30	Average number per family.	1.0	1.0	......	......	1.0	......	......	......	......	1.0
	Natural family:										
31	Total number of persons.	1,471	268	66	20	313	162	......	6	6	573
32	Average number per family.	5.8	4.7	6.6	6.7	5.9	5.8	......	6.0	6.0	6.0
33	Total number of wage-earners.	743	151	29	7	149	73	......	2	2	262
34	Average number per family.	2.9	2.6	2.9	2.3	2.8	2.6	......	2.0	2.0	2.7
	Boarders and lodgers, not members of family:										
35	Number of families having.	22	4	1	......	4	3	......	......	......	8
36	Number of such boarders and lodgers.	53	4	1	......	5	7	......	......	......	13
37	Average number per family.	2.4	1.0	1.0	......	1.3	2.3	......	......	......	1.6
	The household:										
38	Total number of persons.	1,524	272	67	20	318	169	......	6	6	586
39	Average number per family.	6.0	4.8	6.7	6.7	6.0	6.0	......	6.0	6.0	6.1

AS TO EMPLOYMENT, BY NATIVITY AND RACE, FOR GROUPS OF STATES COMBINED—Continued.

NEW YORK, OHIO, INDIANA, ILLINOIS, WISCONSIN, MISSOURI—Concluded.

Nativity and race of head of family.										
Foreign-born.									Total all nativities.	Marginal number.
English.	French.	German.	Irish.	Italian, South.	Polish.	Other Slavs.	Other races.	Total.		
12	5	67	28	3	18	22	6	161	346	12
20	8	99	55	3	23	27	7	242	514	13
1.7	1.6	1.5	2.0	1.0	1.3	1.2	1.2	1.5	1.5	14
19 95.0	7 87.5	82 82.8	44 80.0	2 66.7	15 65.2	23 85.2	5 71.4	197 81.4	426 82.9	15
24	9	91	16	6	37	36	15	234	539	16
28	10	106	19	6	43	37	16	265	596	17
1.2	1.1	1.2	1.2	1.0	1.2	1.0	1.1	1.1	1.1	18
3 10.7	1 10.0	8 7.5	7 36.8	....	3 7.0	3 8.1	1 6.3	26 9.8	57 9.6	19
3 10.7	....	6 5.7	1 5.3	....	....	....	....	10 3.8	19 3.2	20
22 78.6	9 90.0	92 86.8	11 57.9	6 100.0	40 93.0	34 91.9	15 93.7	229 86.4	520 87.2	21
17	8	82	17	4	33	35	14	210	495	22
43	20	229	44	9	126	113	42	626	1,367	23
2.4	2.5	2.8	2.6	2.3	3.8	3.2	3.0	3.0	2.8	24
26 60.5	13 65.0	149 65.1	34 77.3	5 55.6	77 61.1	69 61.1	32 76.2	405 64.7	891 65.2	25
17 39.5	7 35.0	79 34.5	10 22.7	3 33.3	49 38.9	44 38.9	10 23.8	219 35.0	469 34.3	26
....	....	1 0.4	....	1 11.1	....	....	....	2 0.3	7 0.5	27
1	....	2	1	....	2	....	1	7	18	28
1	....	3	1	....	2	....	1	8	19	29
1.0	....	1.5	1.0	....	1.0	....	1.0	1.1	1.1	30
151	66	720	209	31	295	286	103	1,861	4,173	31
6.0	6.6	6.5	6.5	5.2	8.0	6.8	6.4	6.7	6.1	32
75	33	348	111	18	121	123	42	871	2,027	33
3.0	3.3	3.2	3.5	3.0	3.3	2.9	2.6	3.1	3.0	34
3	....	8	1	1	....	3	3	19	53	35
6	....	11	4	4	....	10	7	42	112	36
2.0	....	1.4	4.0	4.0	....	3.3	2.3	2.2	2.1	37
157	66	731	213	35	295	296	110	1,903	4,285	38
6.3	6.6	6.6	6.7	5.8	8.0	7.0	6.9	6.8	6.2	39

TABLE XI.—COMPOSITION OF FAMILIES AND CONDITION OF MEMBERS AND FOR ALL STATES

MARYLAND, VIRGINIA, TENNESSEE, SOUTH CAROLINA, GEORGIA.

Marginal number.	Composition of families and condition of members as to employment.		Nativity and race of head of family.									
			Native of native parents.		Native of foreign parents.							
			White.	Colored.	English.	French.	German.	Irish.	Italian, South.	Polish.	Other races.	Total
1	Total number of families		44	20	2	....	13	1	......	......	......	16
	Fathers:											
2	Families having father at work.	Number	35	12	2	....	12	1	......	......	......	15
		Per cent	79.5	60.0	100.0	....	92.3	100.0	......	......	......	93.8
3	Families having father idle or incapacitated.	Number	......	1	......	....	......	......	......	......	......	......
		Per cent	......	5.0	......	....	......	......	......	......	......	......
4	Families having father dead, deserter, or away.	Number	9	7	......	....	1	......	......	......	......	1
		Per cent	20.5	35.0	......	....	7.7	......	......	......	......	6.3
	Mothers:											
5	Families having mother at home.	Number	39	4	2	....	11	1	......	......	......	14
		Per cent	88.6	20.0	100.0	....	84.6	100.0	......	......	......	87.5
6	Families having mother at work.	Number	4	16	......	....	2	......	......	......	......	2
		Per cent	9.1	80.0	......	....	15.4	......	......	......	......	12.5
7	Families having mother dead or away.	Number	1	......	......	....	......	......	......	......	......	......
		Per cent	2.3	......	......	....	......	......	......	......	......	......
	Male members of family (excluding father) 16 years of age and over:											
8	Number of families having.		25	9	......	....	8	1	......	......	......	9
9	Number of such persons.		37	15	......	....	8	2	......	......	......	10
10	Average number per family.		1.5	1.7	......	....	1.0	2.0	......	......	......	1.1
11	At work	Number	37	13	......	....	8	2	......	......	......	10
		Per cent	100.0	86.7	......	....	100.0	100.0	......	......	......	100.0
	Female members of family (excluding mother) 16 years of age and over:											
12	Number of families having.		19	11	1	....	6	1	......	......	......	8
13	Number of such persons.		22	16	1	....	6	1	......	......	......	8
14	Average number per family.		1.2	1.5	1.0	....	1.0	1.0	......	......	......	1.0
15	At work	Number	16	13	1	....	6	......	......	......	......	7
		Per cent	72.7	81.3	100.0	....	100.0	......	......	......	......	87.5
	Children 14 and 15 years of age:											
16	Number of families having.		31	17	2	....	9	1	......	......	......	12
17	Number of such persons.		34	20	2	....	9	1	......	......	......	12
18	Average number per family.		1.1	1.2	1.0	....	1.0	1.0	......	......	......	1.0
19	At school	Number	......	......	......	....	......	1	......	......	......	1
		Per cent	......	......	......	....	......	100.0	......	......	......	8.3
20	At home	Number	1	2	......	....	......	......	......	......	......	......
		Per cent	2.9	10.0	......	....	......	......	......	......	......	......
21	At work	Number	33	18	2	....	9	......	......	......	......	11
		Per cent	97.1	90.0	100.0	....	100.0	......	......	......	......	91.7
	Children under 14 years of age:											
22	Number of families having.		37	17	2	....	13	1	......	......	......	16
23	Number of such persons.		123	44	8	....	41	2	......	......	......	51
24	Average number per family.		3.3	2.6	4.0	....	3.2	2.0	......	......	......	3.2
25	At school	Number	46	9	5	....	18	1	......	......	......	24
		Per cent	37.4	20.5	62.5	....	43.9	50.0	......	......	......	47.1
26	At home	Number	56	24	2	....	18	......	......	......	......	20
		Per cent	45.5	54.5	25.0	....	43.9	......	......	......	......	39.2
27	At work	Number	21	11	1	....	5	1	......	......	......	7
		Per cent	17.1	25.0	12.5	....	12.2	50.0	......	......	......	13.7

AS TO EMPLOYMENT, BY NATIVITY AND RACE, FOR GROUPS OF STATES COMBINED—Continued.

MARYLAND, VIRGINIA, TENNESSEE, SOUTH CAROLINA, GEORGIA.

Nativity and race of head of family.										Marginal number.
Foreign-born.									Total all nativities.	
English.	French.	German.	Irish.	Italian, South.	Polish.	Other Slavs.	Other races.	Total.		
1		10	1				1	13	93	1
		10 100.0	1 100.0				1 100.0	12 92.3	7.4 79.6	2
									1 1.1	3
1 100.0								1 7.7	18 19.4	4
1 100.0		9 90.0	1 100.0				1 100.0	12 92.3	69 74.2	5
		1 10.0						1 7.7	23 24.7	6
									1 1.1	7
1		6	1					8	51	8
4		8	2					14	76	9
4.0		1.3	2.0					1.8	1.5	10
3 75.0		8 100.0	2 100.0					13 92.9	73 96.1	11
		8	1					9	47	12
		15	1					16	62	13
		1.9	1.0					1.8	1.3	14
		10 66.7	1 100.0					11 68.8	47 75.8	15
		7	1					8	68	16
		7	1					8	74	17
		1.0	1.0					1.0	1.1	18
		1 14.3						1 12.5	2 2.7	19
									3 4.1	20
		6 85.7	1 100.0					7 87.5	69 93.2	21
1		9					1	11	81	22
2		26					3	31	249	23
2.0		2.9					3.0	2.8	3.1	24
1 50.0		12 46.2						13 41.9	92 36.9	25
		7 26.9					2 66.7	9 29.0	109 43.8	26
1 50.0		7 26.9					1 33.3	9 29.0	48 19.2	27

TABLE XI.—COMPOSITION OF FAMILIES AND CONDITION OF MEMBERS AND FOR ALL STATES

MARYLAND, VIRGINIA, TENNESSEE, SOUTH CAROLINA, GEORGIA—Concld.

Marginal number.	Composition of families and condition of members as to employment.	Nativity and race of head of family.									
		Native of native parents.		Native of foreign parents.							
		White.	Colored.	English.	French.	German.	Irish.	Italian, South.	Polish.	Other races.	Total.
	Other nonwage-earners:										
28	Number of families having.	......	2	......	......	......	......	......	......	......	......
29	Number of such persons.	......	2	......	......	......	......	......	......	......	......
30	Average number per family.	......	1.0	......	......	......	......	......	......	......	......
	Natural family:										
31	Total number of persons.	294	130	15	......	89	8	......	......	......	112
32	Average number per family.	6.7	6.5	7.5	......	6.8	8.0	......	......	......	7.0
33	Total number of wage-earners.	146	83	6	......	42	4	......	......	......	52
34	Average number per family.	3.3	4.2	3.0	......	3.2	4.0	......	......	......	3.3
	Boarders and lodgers not members of family:										
35	Number of families having.	5	1	......	......	1	......	......	......	......	1
36	Number of such boarders and lodgers.	13	1	......	......	1	......	......	......	......	1
37	Average number per family.	2.6	1.0	......	......	1.0	......	......	......	......	1.0
	The household:										
38	Total number of persons.	307	131	15	......	90	8	......	......	......	113
39	Average number per family.	7.0	6.6	7.5	......	6.9	8.0	......	......	......	7.1

ALL STATES.

Marginal number.	Composition of families and condition of members as to employment.		White.	Colored.	English.	French.	German.	Irish.	Italian, South.	Polish.	Other races.	Total.
1	Total number of families....		787	83	27	8	154	77	1	1	2	270
	Fathers:											
2	Families having father at work.	Number..	585	54	20	6	129	58	1	1	2	217
		Per cent..	74.3	65.1	74.1	75.0	83.8	75.3	100.0	100.0	100.0	80.4
3	Families having father idle or incapacitated.	Number..	23	2	1	......	2	5	......	......	......	8
		Per cent..	2.9	2.4	3.7	......	1.3	6.5	......	......	......	2.9
4	Families having father dead, deserter, or away.	Number..	179	27	6	2	23	14	......	......	......	45
		Per cent..	22.8	32.5	22.2	25.0	14.9	18.2	......	......	......	16.7
	Mothers:											
5	Families having mother at home.	Number..	649	26	20	8	137	60	1	1	2	229
		Per cent..	82.5	31.3	74.1	100.0	89.0	77.9	100.0	100.0	100.0	84.8
6	Families having mother at work.	Number..	115	56	7	......	16	14	......	......	......	37
		Per cent..	14.6	67.5	25.9	......	10.4	18.2	......	......	......	13.7
7	Families having mother dead or away.	Number..	23	1	......	......	1	3	......	......	......	4
		Per cent..	2.9	1.2	......	......	0.6	3.9	......	......	......	1.5
	Male members of family (excluding father) 16 years of age and over:											
8	Number of families having.		381	29	8	3	69	32	1	......	1	114
9	Number of such persons.		527	41	13	4	97	51	1	......	3	169
10	Average number per family.		1.4	1.4	1.6	1.3	1.4	1.6	1.0	......	3.0	1.5
11	At work.....	Number..	515	38	12	3	92	44	1	......	3	155
		Per cent..	97.7	92.7	92.3	75.0	94.8	86.3	100.0	......	100.0	91.7

AS TO EMPLOYMENT, BY NATIVITY AND RACE, FOR GROUPS OF STATES COMBINED—Continued.

MARYLAND, VIRGINIA, TENNESSEE, SOUTH CAROLINA, GEORGIA—Concld.

Nativity and race of head of family.										
Foreign-born.									Total all nativities.	Marginal number.
English.	French.	German.	Irish.	Italian, South.	Polish.	Other Slavs.	Other races.	Total.		
....	....	....	....	....	....	....	....	....	2	28
....	....	....	....	....	....	....	....	....	2	29
....	....	....	....	....	....	....	....	....	1.0	30
7	....	76	6	....	....	....	5	94	630	31
7.0	....	7.6	6.0	....	....	....	5.0	7.2	6.8	32
4	....	42	5	....	....	....	2	53	334	33
4.0	....	4.2	5.0	....	....	....	2.0	4.1	3.6	34
1	....	1	....	....	....	....	....	2	9	35
1	....	1	....	....	....	....	....	2	17	36
1.0	....	1.0	....	....	....	....	....	1.0	1.9	37
8	....	77	6	....	....	....	5	96	647	38
8.0	....	7.7	6.0	....	....	....	5.0	7.4	7.0	39

ALL STATES.

77	59	296	117	50	208	135	55	997	2,137	1
58 75.3	53 89.8	199 67.2	74 63.2	47 94.0	183 88.0	119 88.2	45 81.8	778 78.0	1,634 76.4	2
5 6.5	2 3.4	23 7.8	12 10.3	1 2.0	6 2.9	6 4.4	1 1.8	56 5.6	89 4.2	3
14 18.2	4 6.8	74 25.0	31 26.5	2 4.0	19 9.1	10 7.4	9 16.4	163 16.4	414 19.4	4
69 89.6	51 86.4	259 87.5	98 83.7	40 80.0	197 94.7	130 96.3	48 87.3	892 89.5	1,796 84.1	5
7 9.1	5 8.5	33 11.1	14 12.0	7 14.0	7 3.4	4 3.0	6 10.9	83 8.3	291 13.6	6
1 1.3	3 5.1	4 1.4	5 4.3	3 6.0	4 1.9	1 0.7	1 1.8	22 2.2	50 2.3	7
38	24	163	61	14	92	63	26	481	1,005	8
54	32	243	101	17	137	76	38	698	1,435	9
1.4	1.3	1.5	1.7	1.2	1.5	1.2	1.5	1.4	1.4	10
50 92.6	31 96.9	239 98.4	100 99.0	17 100.0	133 97.1	68 89.5	38 100.0	676 96.8	1,384 96.4	11

TABLE XI.—COMPOSITION OF FAMILIES AND CONDITION OF MEMBERS AND FOR ALL STATES

ALL STATES—Concluded.

Marginal number.	Composition of families and condition of members as to employment.	Nativity and race of head of family.									
		Native of native parents.		Native of foreign parents.							
		White.	Colored.	English.	French.	German.	Irish.	Italian, South.	Polish.	Other races.	Total.
	Female members of family (excluding mother) 16 years of age and over:										
12	Number of families having.	407	38	13	6	79	39	......	......	1	138
13	Number of such persons.	580	53	18	8	100	55	......	......	1	182
14	Average number per family.	1.4	1.4	1.4	1.3	1.3	1.4	......	......	1.0	1.3
15	At work...... Number..	457	44	16	7	76	44	......	......	1	144
	Per cent..	78.8	83.0	88.9	87.5	76.0	80.0	......	......	100.0	79.1
	Children 14 and 15 years of age:										
16	Number of families having.	610	48	19	5	127	62	1	1	1	216
17	Number of such persons.	676	55	23	5	142	66	1	1	1	239
18	Average number per family.	1.1	1.1	1.2	1.0	1.1	1.1	1.0	1.0	1.0	1.1
19	At school.... Number..	42	4	2	....	12	7	......	......	......	21
	Per cent..	6.2	7.3	8.7	....	8.5	10.6	......	......	......	8.8
20	At home...... Number..	20	4	2	....	9	4	......	......	......	15
	Per cent..	3.0	7.3	8.7	....	6.3	6.1	......	......	......	6.3
21	At work...... Number..	614	47	19	5	121	55	1	1	1	203
	Per cent..	90.8	85.4	82.6	100.0	85.2	83.3	100.0	100.0	100.0	84.9
	Children under 14 years of age:										
22	Number of families having.	595	55	22	6	124	58	1	1	2	214
23	Number of such persons.	1,619	142	63	12	350	175	1	3	7	611
24	Average number per family.	2.7	2.6	2.9	2.0	2.8	3.0	1.0	3.0	3.5	2.9
25	At school.... Number..	951	66	40	10	215	109	......	2	3	379
	Per cent..	58.7	46.5	63.5	83.3	61.4	62.3	......	66.7	42.9	62.0
26	At home...... Number..	573	62	20	2	123	60	1	1	4	211
	Per cent..	35.4	43.7	31.7	16.7	35.2	34.3	100.0	33.3	57.1	34.5
27	At work...... Number..	95	14	3	....	12	6	......	......	......	21
	Per cent..	5.9	9.8	4.8	......	3.4	3.4	......	......	......	3.5
	Other nonwage-earners:										
28	Number of families having.	25	5	......	1	4	5	......	......	......	10
29	Number of such persons.	27	5	......	1	4	6	......	......	......	11
30	Average number per family.	1.1	1.0	......	1.0	1.0	1.2	......	......	......	1.1
	Natural family:										
31	Total number of persons.	4,801	434	165	44	977	490	5	6	16	1,703
32	Average number per family.	6.1	5.2	6.1	5.5	6.3	6.4	5.0	6.0	8.0	6.3
33	Total number of wage-earners.	2,381	253	77	21	446	221	3	2	7	777
34	Average number per family.	3.0	3.0	2.9	2.6	2.9	2.9	3.0	2.0	3.5	2.9
	Boarders and lodgers not members of family:										
35	Number of families having.	67	8	2	....	13	6	......	......	......	21
36	Number of such boarders and lodgers.	134	8	2	....	20	13	......	......	......	35
37	Average number per family.	2.0	1.0	1.0	....	1.5	2.2	......	......	......	1.7
	The household:										
38	Total number of persons.	4,935	442	167	44	997	503	5	6	16	1,738
39	Average number per family.	6.3	5.3	6.2	5.5	6.5	6.5	5.0	6.0	8.0	6.4

AS TO EMPLOYMENT, BY NATIVITY AND RACE, FOR GROUPS OF STATES COMBINED—Concluded.

ALL STATES—Concluded.

Nativity and race of head of family.										Marginal number.
Foreign-born.									Total all nativities.	
English.	French.	German.	Irish.	Italian, South.	Polish.	Other Slavs.	Other races.	Total.		
40	36	200	74	17	94	65	20	546	1,129	12
65	49	287	124	20	118	81	24	768	1,583	13
1.6	1.4	1.4	1.7	1.2	1.3	1.2	1.2	1.4	1.4	14
55 84.6	41 83.7	240 83.6	98 79.0	14 70.0	90 76.3	70 86.4	17 70.8	625 81.4	1,270 80.2	15
62	46	228	86	43	178	115	49	807	1,681	16
74	52	258	93	51	207	131	58	924	1,894	17
1.2	1.1	1.1	1.1	1.2	1.2	1.1	1.2	1.1	1.1	18
7 9.5	2 3.9	24 9.3	10 10.8	2 3.9	11 5.3	7 5.3	4 6.9	67 7.3	134 7.1	19
3 4.0	1 1.9	12 4.7	3 3.2	2 3.9	4 1.9	....	....	25 2.7	64 3.4	20
64 86.5	49 94.2	222 86.0	80 86.0	47 92.2	192 92.8	124 94.7	54 93.1	832 90.0	1,696 89.5	21
59	40	218	79	41	180	119	46	782	1,646	22
157	89	624	259	142	610	372	143	2,396	4,768	23
2.7	2.2	2.9	3.3	3.5	3.4	3.1	3.1	3.1	2.9	24
94 59.9	65 73.0	400 64.1	180 69.5	71 50.0	341 55.9	200 53.8	84 58.7	1,435 59.9	2,831 59.4	25
58 36.9	23 25.9	205 32.9	71 27.4	63 44.4	258 42.3	161 43.3	55 38.5	894 37.3	1,740 36.5	26
5 3.2	1 1.1	19 3.0	8 3.1	8 5.6	11 1.8	11 2.9	4 2.8	67 2.8	197 4.1	27
5	....	6	3	2	7	1	1	25	65	28
5	....	8	3	2	7	1	1	27	70	29
1.0	....	1.3	1.0	1.0	1.0	1.0	1.0	1.1	1.1	30
494	333	1,934	778	327	1,472	920	364	6,622	13,560	31
6.4	5.6	6.5	6.6	6.5	7.1	6.8	6.6	6.6	6.3	32
239	180	952	374	140	616	396	164	3,061	6,472	33
3.1	3.1	3.2	3.2	2.8	3.0	2.9	3.0	3.1	3.0	34
7	4	21	7	8	17	12	5	81	177	35
10	6	32	15	17	21	37	13	151	328	36
1.4	1.5	1.5	2.1	2.1	1.2	3.1	2.6	1.9	1.9	37
504	339	1,966	793	344	1,493	957	377	6,773	13,888	38
6.5	5.7	6.6	6.8	6.9	7.2	7.1	6.9	6.8	6.5	39

TABLE XII.—FAMILY INCOME, BY CONDITION OF MEMBERS AS TO EMPLOYMENT.

This table shows for each group of States and all States combined, for representative families having one or more women or children employed in the glass factories covered by this investigation, the total family income and the income from certain sources, in families classified as having father at work, mother at work, and children of certain specified ages at work. The families are the same as presented and analyzed in the preceding Table XI, and have also been arranged in groups of States in the same manner as explained in connection with that table. The data in regard to the income of the family and of the individual workers were secured in the home from members of the family. In securing the earnings, great care was used in questioning to see that due allowance was made for changes in rates of wages during the year, for time lost either by sickness, irregularity of the workers, or a reduction of time or of the working force in the establishment. As a result of this careful questioning, reports were secured as accurate, probably, as it is possible to secure in the absence of detailed records. They are, however, necessarily only approximate, sometimes with a considerable error in the case of the individual, but probably very close to the facts on the average. The probability of error in these figures is discussed in detail on page 508.

TABLE XII.—TOTAL FAMILY INCOME AND INCOME FROM CERTAIN
AND CHILDREN OF CERTAIN SPECIFIED AGES AT WORK, BY NATIVITY

PENNSYLVANIA, NEW JERSEY, WEST VIRGINIA.

Marginal number.	Composition of families, specified sources of income, etc.	Nativity and race of head of family.									
		Native of native parents.		Native of foreign parents.							
		White.	Colored.	English.	French.	German.	Irish.	Italian, South.	Polish.	Other races.	Total.
1	Total number of families....	488	6	15	5	88	48	1	......	1	158
2	Average gross income per family.	$953	$881	$874	$1,391	$993	$952	$235	......	$1,178	$978
3	Average net income (amount paid into family fund) per family.	$847	$808	$797	$1,333	$937	$816	$235	......	$990	$895
4	Families with father at work.	351	5	10	4	72	38	1	......	1	126
5	Average gross income per family.	$1,052	$955	$892	$1,517	$1,062	$919	$235	......	$1,178	$1,014
6	Average net income (amount paid into family fund) per family.	$945	$905	$877	$1 445	$1,004	$833	$235	......	$990	$950
7	Average earnings of fathers.	$559	$572	$561	$1,119	$604	$537	$125	......	$180	$590
8	Per cent of earnings of fathers of gross income of families.	53.1	59.8	62.9	73.8	56.9	58.4	53.2	......	15.3	58.1
9	Per cent of earnings of fathers of net income of families.	59.1	63.2	64.0	77.5	60.2	64.5	53.2	......	18.2	62.1

An examination of that part of the table relating to the first group shows that of the 1,358 families of all nativities which were investigated in that group of States the average gross income per family—that is, the total earnings of all members of the family plus any income the family may have had from any other source—was $922. Of this amount, $849 was paid into the family fund to meet the expenses of the family as such, the difference being the amount retained by the individual members of the family for their personal expenses. Following this the families are classified according to their several sources of income, and certain facts are shown in regard to these sources. The classification of families is for families with father at work, mother at work, males 16 years of age and over at work, females 16 years of age and over at work, children 14 and 15 years of age at work, children under 14 at work, and families with income from other sources. For the 1,037 families with father at work the average gross income per family was $979. The average net income (amount paid into family fund per family) was $911. Of the average gross income the father earned $511, or 52.2 per cent, which amount was, as compared with the net income of the family, 56 per cent. The remaining figures of the table may be read in like manner.

SOURCES IN FAMILIES WITH FATHER AT WORK, MOTHER AT WORK, AND RACE, FOR GROUPS OF STATES AND FOR ALL STATES COMBINED.

PENNSYLVANIA, NEW JERSEY, WEST VIRGINIA.

Nativity and race of head of family.										Marginal number.
Foreign-born.									Total, all nativities.	
English.	French.	German.	Irish.	Italian, South.	Polish.	Other Slavs.	Other races.	Total.		
51	49	176	84	44	171	93	38	706	1,358	1
$1,010	$975	$1,018	$882	$781	$801	$742	$902	$888	$922	2
$960	$924	$950	$812	$769	$759	$737	$827	$840	$849	3
40	43	119	57	42	147	77	30	555	1,037	4
$1,088	$1,010	$1,104	$907	$790	$832	$778	$912	$924	$979	5
$1,044	$975	$1,043	$847	$777	$784	$772	$859	$881	$911	6
$578	$530	$542	$507	$382	$396	$378	$449	$462	$511	7
53.1	52.5	49.1	55.9	48.3	47.5	48.6	49.2	50.0	52.2	8
55.4	54.4	52.0	59.9	49.1	50.4	49.0	52.3	52.4	56.0	9

TABLE XII.—TOTAL FAMILY INCOME AND INCOME FROM CERTAIN AND CHILDREN OF CERTAIN SPECIFIED AGES AT

PENNSYLVANIA, NEW JERSEY, WEST VIRGINIA—Continued.

Marginal number.	Composition of families, specified sources of income, etc.	Nativity and race of head of family.									
		Native of native parents.		Native of foreign parents.							
		White.	Colored.	English.	French.	German.	Irish.	Italian, South.	Polish.	Other races.	Total.
10	Families with mother at work.	71	1	4	....	7	10	......	......	......	21
11	Average gross income per family.	$632	$628	$742	....	$782	$904	......	......	......	$832
12	Average net income (amount paid into family fund) per family.	$595	$628	$645	....	$769	$694	......	......	......	$710
13	Average earnings of mothers.	$160	$50	$113	....	$118	$192	......	......	......	$152
14	Per cent of earnings of mothers of gross income of families.	25.3	8.0	15.2	....	15.1	21.2	......	......	......	18.3
15	Per cent of earnings of mothers of net income of families.	26.9	8.0	17.5	....	15.3	27.7	......	......	......	21.4
16	Families with males 16 years and over at work.	238	4	5	2	38	20	1	......	1	67
17	Number of males 16 years and over at work.	321	6	7	3	53	28	1	......	3	95
18	Average gross income per family.	$1,155	$1,060	$1,068	$1,549	$1,282	$1,142	$235	......	$1,178	$1,215
19	Average net income (amount paid into family fund) per family.	$965	$951	$868	$1,404	$1,164	$894	$235	......	$990	$1,052
20	Average earnings per family of males 16 years and over.	$489	$385	$496	$472	$490	$507	$50	......	$624	$490
21	Average amount per family paid into family fund by males 16 years and over.	$338	$278	$377	$472	$380	$295	$50	......	$436	$353
22	Average earnings per male 16 years and over.	$363	$257	$355	$315	$351	$362	$50	......	$208	$346
23	Average amount paid into family fund per male 16 years and over.	$251	$185	$269	$315	$273	$211	$50	......	$145	$249
24	Per cent of earnings of males 16 years and over of gross income of families.	42.4	36.3	46.5	30.5	38.2	44.4	21.3	......	53.0	40.3
25	Per cent of amount paid into family fund by males 16 years and over of net income of families.	35.0	29.2	43.5	33.6	32.7	33.0	21.3	......	44.0	33.6
26	Families with females 16 years and over at work.	215	......	10	4	36	21	......	......	1	72
27	Number of females 16 years and over at work.	285	......	13	5	48	28	......	......	1	95
28	Average gross income per family.	$1,004	......	$895	$1,541	$983	$1,086	......	......	$1,178	$1,039
29	Average net income (amount paid into family fund) per family.	$858	......	$780	$1,469	$939	$890	......	......	$990	$933
30	Average earnings per family of females 16 years and over.	$265	......	$306	$276	$280	$324	......	......	$230	$295
31	Average amount per family paid into family fund by females 16 years and over.	$212	......	$266	$203	$260	$242	......	......	$230	$252

SOURCES IN FAMILIES WITH FATHER AT WORK, MOTHER AT WORK, WORK, BY NATIVITY AND RACE, ETC.—Continued.

PENNSYLVANIA, NEW JERSEY, WEST VIRGINIA—Continued.

Nativity and race of head of family.										Marginal number.
Foreign-born.									Total, all nativities.	
English.	French.	German.	Irish.	Italian, South.	Polish.	Other Slavs.	Other races.	Total.		
5	5	20	10	6	5	4	6	61	154	10
$740	$785	$807	$625	$601	$517	$459	$566	$679	$678	11
$640	$785	$750	$541	$601	$397	$459	$556	$628	$624	12
$129	$140	$126	$252	$149	$113	$115	$145	$150	$154	13
17.5	17.9	15.6	40.4	24.9	21.8	25.1	25.6	22.1	22.8	14
20.2	17.9	16.7	40.7	24.9	28.3	25.1	26.1	23.9	24.7	15
23	20	95	37	11	76	37	20	319	628	16
33	24	140	62	14	105	44	30	452	874	17
$1,189	$1,263	$1,221	$1,151	$1,223	$1,058	$955	$1,085	$1,135	$1,150	18
$1,111	$1,154	$1,106	$1,004	$1,191	$966	$955	$958	$1,040	$1,012	19
$526	$501	$550	$545	$553	$503	$360	$435	$504	$496	20
$442	$405	$463	$423	$520	$412	$360	$325	$422	$382	21
$366	$418	$373	$325	$434	$364	$303	$295	$356	$357	22
$308	$338	$314	$252	$408	$299	$302	$220	$298	$275	23
44.2	39.7	45.0	47.4	45.2	47.6	37.7	40.1	44.4	43.1	24
39.7	35.1	41.9	42.1	43.7	42.7	37.7	33.9	40.6	37.7	25
25	26	102	37	10	66	40	10	316	603	26
36	34	148	53	12	75	47	12	417	797	27
$1,017	$968	$1,067	$1,114	$661	$912	$867	$1,014	$988	$999	28
$812	$907	$994	$1,017	$661	$864	$861	$898	$918	$898	29
$290	$229	$328	$313	$178	$219	$226	$276	$273	$273	30
$253	$217	$296	$281	$178	$212	$217	$218	$250	$277	31

TABLE XII.—TOTAL FAMILY INCOME AND INCOME FROM CERTAIN AND CHILDREN OF CERTAIN SPECIFIED AGES AT

PENNSYLVANIA, NEW JERSEY, WEST VIRGINIA—Continued.

Marginal number.	Composition of families, specified sources of income, etc.	Nativity and race of head of family.									
		Native of native parents.		Native of foreign parents.							
		White.	Colored.	English.	French.	German.	Irish.	Italian, South.	Polish.	Other races.	Total.
	Families with female 16 years and over at work—Concluded.										
32	Average earnings per female 16 years and over.	$200	......	$235	$220	$210	$243	......	......	$230	$224
33	Average amount paid into family fund per female 16 years and over.	$160	......	$204	$162	$195	$182	......	......	$230	$191
34	Per cent of earnings of females 16 years and over of gross income of families.	26.3	......	34.2	17.9	28.4	29.8	......	......	19.5	28.4
35	Per cent of amount paid into family fund by females 16 years and over of net income of families.	24.7	......	34.1	12.8	27.7	27.2	......	......	23.2	27.0
36	Families with children 14 and 15 years at work.	359	5	6	2	63	33	1	......	......	105
37	Number of children 14 and 15 years at work.	393	5	6	2	69	35	1	......	......	113
38	Average gross income per family.	$971	$820	$851	$1,501	$1,017	$949	$235	......	......	$989
39	Average net income (amount paid into family fund) per family.	$873	$732	$851	$1,356	$977	$817	$235	......	......	$920
40	Average earnings per family of children 14 and 15 years.	$169	$127	$154	$177	$174	$151	$50	......	......	$164
41	Average earnings per child 14 and 15 years.	$154	$127	$154	$177	$158	$143	$50	......	......	$153
42	Per cent of earnings of children 14 and 15 years of gross income of families.	17.4	15.5	18.0	11.8	17.0	16.0	21.3	......	......	16.6
43	Per cent of earnings of children 14 and 15 years of net income of families.	19.3	17.3	18.0	13.1	17.8	18.6	21.3	......	......	17.9
44	Families with children under 14 years at work.	63	1	2	....	6	5	......	......	......	13
45	Number of children under 14 years at work.	71	2	2	....	6	5	......	......	......	13
46	Average gross income per family.	$858	$1,186	$720	....	$960	$608	......	......	......	$788
47	Average net income (amount paid into family fund) per family.	$790	$1,186	$720	....	$889	$605	......	......	......	$754
48	Average earnings per family of children under 14 years.	$132	$33	$141	....	$162	$87	......	......	......	$130
49	Average earnings per child under 14 years.	$117	$17	$141	....	$162	$87	......	......	......	$130
50	Per cent of earnings of children under 14 years of gross income of families.	15.4	2.8	19.5	....	16.8	14.3	......	......	......	16.5
51	Per cent of earnings of children under 14 years of net income of families.	16.7	2.8	19.5	....	18.2	14.4	......	......	......	17.2

SOURCES IN FAMILIES WITH FATHER AT WORK, MOTHER AT WORK, WORK, BY NATIVITY AND RACE, ETC.—Continued.

PENNSYLVANIA, NEW JERSEY, WEST VIRGINIA—Continued.

Nativity and race of head of family.										Marginal number.
Foreign-born.									Total, all nativities.	
English.	French.	German.	Irish.	Italian, South.	Polish.	Other Slavs.	Other races.	Total.		
$202	$175	$226	$218	$148	$192	$192	$230	$207	$206	32
$176	$166	$204	$196	$148	$186	$185	$182	$190	$179	33
28.6	23.7	30.7	28.1	26.9	23.8	26.0	27.3	27.6	27.3	34
31.2	23.9	29.7	27.7	26.9	24.5	25.2	24.3	27.3	26.4	35
36	35	118	64	36	135	75	34	533	1,002	36
42	40	124	68	41	152	90	39	596	1,107	37
$985	$990	$1,002	$767	$828	$783	$741	$876	$860	$913	38
$971	$956	$953	$724	$813	$740	$738	$798	$823	$850	39
$184	$176	$168	$125	$207	$154	$163	$173	$163	$165	40
$158	$154	$160	$118	$182	$137	$136	$150	$146	$149	41
18.7	17.8	16.8	16.3	25.0	19.7	22.0	19.7	19.0	18.1	42
18.9	18.4	17.6	17.3	25.8	20.8	22.1	21.6	19.4	19.4	43
4	1	9	8	7	11	10	3	53	130	44
4	1	11	8	7	11	11	3	56	142	45
$1,064	$507	$894	$783	$685	$807	$528	$639	$754	$810	46
$1,054	$507	$819	$745	$685	$793	$482	$639	$723	$762	47
$122	$50	$129	$59	$142	$75	$159	$130	$113	$123	48
$122	$50	$106	$59	$142	$75	$144	$130	$107	$113	49
11.5	9.9	14.5	7.5	20.8	9.3	30.1	20.4	15.0	15.2	50
11.6	9.9	15.8	7.9	20.8	9.5	33.0	20.4	15.6	16.2	51

TABLE XII.—TOTAL FAMILY INCOME AND INCOME FROM CERTAIN AND CHILDREN OF CERTAIN SPECIFIED AGES AT

PENNSYLVANIA, NEW JERSEY, WEST VIRGINIA—Concluded.

Marginal number.	Composition of families, specified sources of income, etc.	Nativity and race of head of family.									
		Native of native parents.		Native of foreign parents.							
		White.	Colored.	English.	French.	German.	Irish.	Italian, South.	Polish.	Other races.	Total.
52	Families having income from other sources.	194	3	6	1	27	13	1	......	1	49
53	Average gross income per family.	$901	$857	$759	$1,135	$1,038	$1,122	$235	......	$1,178	$1,015
54	Average net income (amount paid into family fund) per family.	$815	$857	$734	$1,135	$934	$851	$235	......	$990	$879
55	Average income per family from other sources.	$73	$57	$50	$80	$92	$75	$10	......	$144	$82
56	Per cent of income from other sources of gross income of families.	8.1	6.6	6.6	7.0	8.9	6.6	4.3	......	12.2	8.0
57	Per cent of income from other sources of net income of families.	9.0	6.6	6.8	7.0	9.9	8.8	4.3	......	14.5	9.3
	NEW YORK, OHIO, INDIANA, ILLINOIS, WISCONSIN, MISSOURI.										
1	Total number of families....	255	57	10	3	53	28	....	1	1	96
2	Average gross income per family.	$936	$732	$982	$538	$1,053	$1,017	....	$676	$741	$1,012
3	Average net income (amount paid into family fund) per family.	$825	$696	$923	$538	$979	$944	....	$676	$741	$944
4	Families with father at work.	199	37	8	2	45	19	....	1	1	76
5	Average gross income per family.	$984	$789	$1,142	$589	$1,120	$1,171	....	$676	$741	$1,110
6	Average net income (amount paid into family fund) per family.	$874	$771	$1,068	$589	$1,057	$1,064	....	$676	$741	$1,039
7	Average earnings of fathers.	$502	$398	$728	$325	$648	$732	....	$500	$461	$665
8	Per cent of earnings of fathers of gross income of families.	51.0	50.5	63.8	55.1	57.9	62.5	....	74.0	62.2	59.9
9	Per cent of earnings of fathers of net income of families.	57.4	51.7	69.3	55.1	61.3	68.8	....	74.0	62.2	64.0
10	Families with mothers at work.	40	39	3	....	7	4	....	......	......	14
11	Average gross income per family.	$628	$667	$348	....	$665	$441	....	......	......	$533
12	Average net income (amount paid into family fund) per family.	$572	$642	$348	....	$665	$441	....	......	......	$533
13	Average earnings of mothers.	$130	$201	$120	....	$134	$232	....	......	......	$159
14	Per cent of earnings of mothers of gross income of families.	20.7	30.1	34.5	....	20.2	52.6	....	......	......	29.9
15	Per cent of earnings of mothers of net income of families.	22.8	31.2	34.5	....	20.2	52.6	....	......	......	29.9

SOURCES IN FAMILIES WITH FATHER AT WORK, MOTHER AT WORK, WORK, BY NATIVITY AND RACE, ETC.—Continued.

PENNSYLVANIA, NEW JERSEY, WEST VIRGINIA—Concluded.

Nativity and race of head of family.										Marginal number.
Foreign-born.									Total, all nativities.	
English.	French.	German.	Irish.	Italian, South.	Polish.	Other Slavs.	Other races.	Total.		
20	20	62	28	17	77	56	14	294	540	52
$1,206	$958	$1,004	$830	$714	$730	$730	$1,012	$857	$887	53
$1,135	$958	$963	$765	$705	$726	$726	$952	$833	$831	54
$70	$70	$82	$84	$61	$54	$54	$142	$69	$72	55
5.8	7.3	8.2	10.2	8.5	7.3	7.4	14.1	8.1	8.1	56
6.2	7.3	8.5	11.0	8.6	7.4	7.4	15.0	8.3	8.6	57

NEW YORK, OHIO, INDIANA, ILLINOIS, WISCONSIN, MISSOURI.

25	10	110	32	6	37	42	16	278	686	1
$1,035	$1,424	$995	$1,169	$917	$954	$977	$1,407	$1,048	$975	2
$998	$1,375	$881	$907	$917	$860	$967	$1,246	$944	$879	3
18	10	70	16	5	36	42	14	211	523	4
$1,208	$1,424	$1,043	$1,346	$866	$936	$977	$1,540	$1,095	$1,034	5
$1,170	$1,375	$963	$1,157	$866	$857	$967	$1,356	$1,021	$950	6
$679	$725	$524	$484	$427	$422	$453	$932	$537	$532	7
56.2	50.9	50.2	35.9	49.3	45.0	46.4	60.5	49.0	51.5	8
58.0	52.7	54.4	41.8	49.3	49.2	46.8	68.7	52.5	56.0	9
2	....	12	4	1	2	....	....	21	114	10
$356	....	$764	$1,083	$518	$1,076	....	....	$804	$662	11
$356	....	$699	$724	$518	$974	....	....	$689	$613	12
$156	....	$194	$112	$125	$364	....	....	$188	$168	13
43.8	....	25.4	10.3	24.1	33.8	....	....	23.4	25.5	14
43.8	....	27.8	15.4	24.1	37.4	....	....	27.3	27.5	15

TABLE XII.—TOTAL FAMILY INCOME AND INCOME FROM CERTAIN AND CHILDREN OF CERTAIN SPECIFIED AGES AT

NEW YORK, OHIO, INDIANA, ILLINOIS, WISCONSIN, MISSOURI—Continued.

Marginal number.	Composition of families, specified sources of income, etc.	Nativity and race of head of family.									
		Native of native parents.		Native of foreign parents.							
		White.	Colored.	English.	French.	German.	Irish.	Italian, South.	Polish.	Other races.	Total.
16	Families with males 16 years and over at work.	112	16	1	......	21	10	......	......	......	32
17	Number of males 16 years and over at work.	157	19	5	......	31	14	......	......	......	50
18	Average gross income per family.	$1,203	$1,082	$2,169	......	$1,277	$1,202	......	......	......	$1,281
19	Average net income (amount paid into family fund) per family.	$979	$1,011	$1,735	......	$1,120	$1,049	......	......	......	$1,117
20	Average earnings per family of males 16 years and over.	$557	$415	$1,140	......	$592	$569	......	......	......	$602
21	Average amount per family paid into family fund by males 16 years and over.	$362	$345	$696	......	$451	$432	......	......	......	$453
22	Average earnings per male 16 years and over.	$397	$350	$228	......	$401	$406	......	......	......	$385
23	Average amount paid into family fund per male 16 years and over.	$258	$291	$139	......	$306	$308	......	......	......	$290
24	Per cent of earnings of males 16 years and over of gross income of families.	46.3	38.4	52.6	......	46.3	47.3	......	......	......	46.9
25	Per cent of amount paid into family fund by males 16 years and over of net income of families.	36.9	34.2	40.1	......	40.3	41.2	......	......	......	40.5
26	Families with females 16 years and over at work	100	22	2	1	18	12	......	......	......	33
27	Number of females 16 years and over at work.	156	31	2	2	22	16	......	......	......	42
28	Average gross income per family.	$1,053	$902	$1,447	$436	$1,199	$1,063	......	......	......	$1,141
29	Average net income (amount paid into family fund) per family.	$902	$828	$1,369	$436	$1,010	$879	......	......	......	$966
30	Average earnings per family of females 16 years and over.	$310	$293	$165	$312	$252	$328	......	......	......	$276
31	Average amount per family paid into family fund by females 16 years and over.	$256	$262	$125	$312	$218	$268	......	......	......	$233
32	Average earnings per female 16 years and over.	$199	$208	$165	$156	$206	$245	......	......	......	$217
33	Average amount paid into family fund per female 16 years and over.	$164	$186	$125	$156	$178	$201	......	......	......	$183
34	Per cent of earnings of females 16 years and over of gross income of families.	29.4	32.4	11.4	71.6	21.0	30.8	......	......	......	24.2
35	Per cent of amount paid into family fund by females 16 years and over of net income of families.	28.4	31.6	9.1	71.6	21.1	30.5	......	......	......	24.1

SOURCES IN FAMILIES WITH FATHER AT WORK, MOTHER AT WORK, WORK, BY NATIVITY AND RACE, ETC.—Continued.

NEW YORK, OHIO, INDIANA, ILLINOIS, WISCONSIN, MISSOURI—Continued.

Nativity and race of head of family.										Marginal number.
Foreign-born.									Total, all nativities.	
English.	French.	German.	Irish.	Italian, South.	Polish.	Other Slavs.	Other races.	Total.		
11	4	62	23	3	15	22	6	146	306	16
14	7	91	36	3	28	24	8	211	437	17
$1,314	$1,725	$1,159	$1,374	$1,192	$1,231	$1,167	$1,986	$1,263	$1,234	18
$1,262	$1,644	$969	$1,075	$1,192	$1,013	$1,154	$1,557	$1,087	$1,047	19
$465	$685	$587	$725	$584	$619	$453	$911	$599	$574	20
$434	$605	$422	$468	$584	$421	$440	$482	$444	$409	21
$365	$392	$400	$463	$584	$332	$415	$683	$414	$402	22
$341	$346	$288	$299	$584	$226	$404	$362	$307	$287	23
35.4	39.7	50.7	52.8	49.0	50.3	38.8	45.9	47.4	46.5	24
34.4	36.8	43.6	43.0	49.0	41.6	38.2	31.0	40.8	39.1	25
11	5	53	26	2	12	21	4	134	289	26
19	7	82	44	2	15	23	5	197	426	27
$1,016	$1,725	$1,047	$1,218	$843	$1,154	$978	$1,207	$1,103	$1,075	28
$936	$1,691	$891	$975	$843	$1,017	$978	$1,207	$975	$937	29
$425	$397	$312	$364	$118	$268	$211	$285	$311	$305	30
$372	$362	$264	$309	$118	$247	$211	$285	$274	$262	31
$246	$283	$201	$215	$118	$214	$193	$228	$211	$207	32
$215	$259	$171	$183	$118	$198	$193	$228	$186	$178	33
41.8	23.0	29.8	29.9	13.9	23.2	21.6	23.6	28.2	28.4	34
39.7	21.4	29.6	31.7	13.9	24.3	21.6	23.6	28.1	28.0	35

TABLE XII.—TOTAL FAMILY INCOME AND INCOME FROM CERTAIN AND CHILDREN OF CERTAIN SPECIFIED AGES AT

NEW YORK, OHIO, INDIANA, ILLINOIS, WISCONSIN, MISSOURI—Concluded.

Marginal number.	Composition of families, specified sources of income, etc.	Nativity and race of head of family.									
		Native of native parents.		Native of foreign parents.							
		White.	Colored.	English.	French.	German.	Irish.	Italian, South.	Polish.	Other races.	Total.
36	Families with children 14 and 15 years at work.	183	22	10	3	41	19	......	1	1	75
37	Number of children 14 and 15 years at work.	188	24	11	3	43	20	......	1	1	79
38	Average gross income per family.	$935	$802	$982	$538	$990	$935	......	$676	$741	$950
39	Average net income (amount paid into family fund) per family.	$836	$791	$923	$538	$977	$914	......	$676	$741	$929
40	Average earnings per family of children 14 and 15 years.	$166	$187	$174	$168	$151	$146	......	$176	$220	$155
41	Average earnings per child 14 and 15 years.	$161	$172	$158	$168	$144	$139	......	$176	$220	$147
42	Per cent of earnings of children 14 and 15 years of gross income of families.	17.7	23.3	17.7	31.2	15.2	15.6	......	26.0	30.0	16.3
43	Per cent of earnings of children 14 and 15 years of net income of families.	19.8	23.7	18.8	31.2	15.4	16.0	......	26.0	30.0	16.6
44	Families with children under 14 years at work.	3	1	......	......	1	......	......	......	......	1
45	Number of children under 14 years at work.	3	1	......	......	1	......	......	......	......	1
46	Average gross income per family.	$584	$798	......	......	$341	......	......	......	......	$341
47	Average net income (amount paid into family fund) per family.	$584	$798	......	......	$341	......	......	......	......	$341
48	Average earnings per family of children under 14 years.	$102	$138	......	......	$37	......	......	......	......	$37
49	Average earnings per child under 14 years.	$102	$138	......	......	$37	......	......	......	......	$37
50	Per cent of earnings of children under 14 years of gross income of families.	17.4	17.3	......	......	10.9	......	......	......	......	10.9
51	Per cent of earnings of children under 14 years of net income of families.	17.4	17.3	......	......	10.9	......	......	......	......	10.9
52	Families having income from other sources.	115	21	4	3	35	13	......	......	1	56
53	Average gross income per family.	$917	$906	$1,361	$538	$927	$1,083	......	......	$741	$970
54	Average net income (amount paid into family fund) per family.	$844	$852	$1,214	$538	$892	$1,025	......	......	$741	$924
55	Average income per family from other sources.	$71	$74	$72	$49	$63	$107	......	......	$60	$73
56	Per cent of income from other sources of gross income of families.	7.8	8.1	5.3	9.2	6.8	9.9	......	......	8.1	7.5
57	Per cent of income from other sources of net income per family.	8.4	8.6	5.9	9.2	7.1	10.5	......	......	8.1	7.9

SOURCES IN FAMILIES WITH FATHER AT WORK, MOTHER AT WORK, WORK, BY NATIVITY AND RACE, ETC.—Continued.

NEW YORK, OHIO, INDIANA, ILLINOIS, WISCONSIN, MISSOURI—Concluded.

Nativity and race of head of family.										Marginal number.
Foreign-born.									Total, all nativities.	
English.	French.	German.	Irish.	Italian, South.	Polish.	Other Slavs.	Other races.	Total.		
21	8	87	10	6	37	34	14	217	497	36
22	9	92	11	6	40	34	15	229	520	37
$979	$1,290	$978	$1,226	$917	$940	$1,007	$1,443	$1,027	$972	38
$964	$1,228	$877	$988	$917	$860	$999	$1,264	$945	$896	39
$139	$180	$144	$158	$148	$173	$146	$154	$152	$159	40
$133	$160	$137	$144	$148	$160	$146	$144	$144	$152	41
13.4	13.9	14.8	12.9	16.2	18.4	14.5	10.7	14.7	16.3	42
14.2	14.7	16.5	16.0	16.2	20.1	14.6	12.1	15.9	17.7	43
....	....	1	....	1	....	....	....	2	7	44
....	....	1	....	1	....	....	....	2	7	45
....	....	$948	....	$518	....	....	....	$733	$622	46
....	....	$758	....	$518	....	....	....	$638	$595	47
....	....	$18	....	$52	....	....	....	$35	$79	48
....	....	$18	....	$52	....	....	....	$35	$79	49
....	....	1.9	....	10.0	....	....	....	4.8	12.6	50
....	....	2.4	....	10.0	....	....	....	5.5	13.2	51
14	5	74	9	1	12	37	9	161	353	52
$824	$1,409	$1,008	$1,352	$1,338	$1,005	$993	$1,286	$1,037	$980	53
$781	$1,374	$885	$1,119	$1,338	$875	$982	$1,064	$939	$900	54
$46	$167	$66	$161	$312	$41	$72	$91	$75	$74	55
5.6	11.9	6.6	11.9	23.3	4.1	7.2	7.0	7.3	7.5	56
5.9	12.2	7.5	14.4	23.3	4.7	7.3	8.5	8.0	8.2	57

TABLE XII.—TOTAL FAMILY INCOME AND INCOME FROM CERTAIN AND CHILDREN OF CERTAIN SPECIFIED AGES AT

MARYLAND, VIRGINIA, TENNESSEE, SOUTH CAROLINA, GEORGIA.

Marginal number.	Composition of families, specified sources of income, etc.	Nativity and race of head of family.									
		Native of native parents.		Native of foreign parents.							
		White.	Colored.	English.	French.	German.	Irish.	Italian, South.	Polish.	Other races.	Total.
1	Total number of families	44	20	2	......	13	1	......	......	......	16
2	Average gross income per family.	$937	$608	$707	......	$751	$1,369	......	......	......	$784
3	Average net income (amount paid into family fund) per family.	$843	$526	$707	......	$729	$887	......	......	......	$736
4	Families with father at work.	35	12	2	......	12	1	......	......	......	15
5	Average gross income per family.	$1,024	$680	$707	......	$743	$1,369	......	......	......	$780
6	Average net income (amount paid into family fund) per family.	$917	$601	$707	......	$735	$887	......	......	......	$741
7	Average earnings of fathers.	$512	$293	$405	......	$427	$456	......	......	......	$426
8	Per cent of earnings of fathers of gross income of families.	50.0	43.2	57.3	......	57.4	33.3	......	......	......	54.6
9	Per cent of earnings of fathers of net income of families.	55.9	48.8	57.3	......	58.0	51.4	......	......	......	57.4
10	Families with mothers at work.	4	16	......	......	2	......	......	......	......	2
11	Average gross income per family.	$912	$578	......	......	$804	......	......	......	......	$804
12	Average net income (amount paid into family fund) per family.	$760	$496	......	......	$757	......	......	......	......	$757
13	Average earnings of mothers.	$55	$92	......	......	$71	......	......	......	......	$71
14	Per cent of earnings of mothers of gross income of families.	6.0	16.0	......	......	8.8	......	......	......	......	8.8
15	Per cent of earnings of mothers of net income of families.	7.2	18.6	......	......	9.3	......	......	......	......	9.3
16	Families with males 16 years and over at work.	25	8	......	......	8	1	......	......	......	9
17	Number of males 16 years and over at work.	37	13	......	......	8	2	......	......	......	10
18	Average gross income per family.	$1,111	$790	......	......	$833	$1,369	......	......	......	$893
19	Average net income (amount paid into family fund) per family.	$958	$617	......	......	$798	$887	......	......	......	$808
20	Average earnings per family of males 16 years and over.	$444	$324	......	......	$262	$788	......	......	......	$320
21	Average amount per family paid into family fund by males 16 years and over.	$303	$151	......	......	$239	$306	......	......	......	$247
22	Average earnings per male 16 years and over.	$300	$200	......	......	$262	$394	......	......	......	$288
23	Average amount paid into family fund per male 16 years and over.	$205	$93	......	......	$239	$153	......	......	......	$220
24	Per cent of earnings of males 16 years and over of gross income of families.	40.0	41.1	......	......	31.4	57.6	......	......	......	35.9

SOURCES IN FAMILIES WITH FATHER AT WORK, MOTHER AT WORK, WORK, BY NATIVITY AND RACE, ETC.—Continued.

MARYLAND, VIRGINIA, TENNESSEE, SOUTH CAROLINA, GEORGIA.

Nativity and race of head of family.										Marginal number.
Foreign-born.									Total, all nativities.	
English.	French.	German.	Irish.	Italian, South.	Polish.	Other Slavs.	Other races.	Total.		
1	....	10	1	....	....	....	1	13	93	1
$453	....	$1,021	$1,632	....	....	....	$700	$999	$849	2
$404	....	$934	$1,394	....	....	....	$700	$911	$766	3
....	....	10	1	....	....	....	1	12	74	4
....	....	$1,021	$1,632	....	....	....	$700	$1,045	$922	5
....	....	$934	$1,394	....	....	....	$700	$953	$836	6
....	....	$477	$450	....	....	....	$624	$487	$455	7
....	....	46.7	27.6	....	....	....	89.1	46.6	49.4	8
....	....	51.0	32.3	....	....	....	89.1	51.1	54.4	9
....	....	1	....	....	....	....	....	1	23	10
....	....	$820	....	....	....	....	....	$820	$666	11
....	....	$820	....	....	....	....	....	$820	$574	12
....	....	$104	....	....	....	....	....	$104	$84	13
....	....	12.7	....	....	....	....	....	12.7	12.7	14
....	....	12.7	....	....	....	....	....	12.7	14.6	15
1	....	6	1	....	....	....	....	8	50	16
3	....	8	2	....	....	....	....	13	73	17
$453	....	$1,207	$1,632	....	....	....	....	$1,166	$1,029	18
$404	....	$1,062	$1,394	....	....	....	....	$1,021	$886	19
$332	....	$253	$785	....	....	....	....	$330	$384	20
$283	....	$175	$547	....	....	....	....	$235	$258	21
$111	....	$190	$393	....	....	....	....	$203	$263	22
$94	....	$131	$274	....	....	....	....	$144	$177	23
73.3	....	21.0	48.1	....	....	....	....	28.3	37.3	24

TABLE XII.—TOTAL FAMILY INCOME AND INCOME FROM CERTAIN AND CHILDREN OF CERTAIN SPECIFIED AGES AT

MARYLAND, VIRGINIA, TENNESSEE, SOUTH CAROLINA, GEORGIA—Cont'd.

Marginal number.	Composition of families, specified sources of income, etc.	Nativity and race of head of family.									
		Native of native parents.		Native of foreign parents.							
		White.	Colored.	English.	French.	German.	Irish.	Italian, South.	Polish.	Other races.	Total.
	Families with males 16 years and over at work—Concl'd										
25	Per cent of amount paid into family fund by males 16 years and over of net income of families.	31.7	24.5	......	....	30.0	34.5	......	......	......	31.5
26	Families with females 16 years and over at work.	14	8	1	....	6	......	......	......	......	7
27	Number of females 16 years and over at work.	16	13	1	....	6	......	......	......	......	7
28	Average gross income per family.	$830	$606	$807	....	$832	......	......	......	......	$828
29	Average net income (amount paid into family fund) per family.	$760	$517	$807	....	$800	......	......	......	......	$801
30	Average earnings per family of females 16 years and over.	$200	$152	$207	....	$132	......	......	......	......	$143
31	Average amount per family paid into family fund by females 16 years and over.	$163	$152	$207	....	$115	......	......	......	......	$128
32	Average earnings per female 16 years and over.	$175	$93	$207	....	$132	......	......	......	......	$143
33	Average amount paid into family fund per female 16 years and over.	$143	$93	$207	....	$115	......	......	......	......	$128
34	Per cent of earnings of females 16 years and over of gross income of families.	24.1	25.1	25.7	....	15.9	......	......	......	......	17.2
35	Per cent of amount paid into family fund by females 16 years and over of net income of families.	21.5	29.4	25.7	....	14.3	......	......	......	......	15.9
36	Families with children 14 and 15 years at work.	30	15	2	....	9	......	......	......	......	11
37	Number of children 14 and 15 years at work.	33	18	2	....	9	......	......	......	......	11
38	Average gross income per family.	$999	$598	$707	....	$729	......	......	......	......	$725
39	Average net income (amount paid into family fund) per family.	$889	$506	$707	....	$729	......	......	......	......	$725
40	Average earnings per family of children 14 and 15 years.	$177	$150	$163	....	$129	......	......	......	......	$135
41	Average earnings per child 14 and 15 years.	$162	$126	$163	....	$129	......	......	......	......	$135
42	Per cent of earnings of children 14 and 15 years of gross income of families.	17.7	25.1	23.1	....	17.7	......	......	......	......	18.7
43	Per cent of earnings of children 14 and 15 years of net income of families.	19.9	29.7	23.1	....	17.7	......	......	......	......	18.7

SOURCES IN FAMILIES WITH FATHER AT WORK, MOTHER AT WORK, WORK, BY NATIVITY AND RACE, ETC.—Continued.

MARYLAND, VIRGINIA, TENNESSEE, SOUTH CAROLINA, GEORGIA—Cont'd.

Nativity and race of head of family.										Marginal number.
Foreign-born.									Total, all nativities.	
English.	French.	German.	Irish.	Italian, South.	Polish.	Other Slavs.	Other races.	Total.		
70.1	....	16.4	39.2	....	....	....	....	23.0	29.1	25
....	....	7	1	....	....	....	....	8	37	26
....	....	10	1	....	....	....	....	11	47	27
....	....	$1,098	$1,632	....	....	....	....	$116	$853	28
....	....	$974	$1,394	....	....	....	....	$103	$773	29
....	....	$279	$207	....	....	....	....	$270	$194	30
....	....	$223	$207	....	....	....	....	$221	$167	31
....	....	$196	$207	....	....	....	....	$197	$153	32
....	....	$156	$207	....	....	....	....	$161	$131	33
....	....	25.5	12.7	....	....	....	....	23.2	22.7	34
....	....	22.9	14.9	....	....	....	....	21.5	21.5	35
....	....	6	1	....	....	....	....	7	63	36
....	....	6	1	....	....	....	....	7	69	37
....	....	$1,002	$1,632	....	....	....	....	$1,092	$880	38
....	....	$975	$1,394	....	....	....	....	$1,035	$782	39
....	....	$149	$180	....	....	....	....	$153	$165	40
....	....	$149	$180	....	....	....	....	$153	$147	41
....	....	14.9	11.0	....	....	....	....	14.0	18.6	42
....	....	15.3	12.9	....	....	....	....	14.8	20.6	43

TABLE XII.—TOTAL FAMILY INCOME AND INCOME FROM CERTAIN AND CHILDREN OF CERTAIN SPECIFIED AGES AT

MARYLAND, VIRGINIA, TENNESSEE, SOUTH CAROLINA, GEORGIA—Concl'd.

Marginal number.	Composition of families, specified sources of income, etc.	Nativity and race of head of family.									
		Native of native parents.		Native of foreign parents.							
		White.	Colored.	English.	French.	German.	Irish.	Italian, South.	Polish.	Other races.	Total.
44	Families with children under 14 years at work.	18	10	1	....	4	1	......	......	......	6
45	Number of children under 14 years at work.	21	11	1	....	5	1	......	......	......	7
46	Average gross income per family.	$1,066	$600	$607	....	$725	$1,369	......	......	......	$813
47	Average net income (amount paid into family fund) per family.	$921	$537	$607	....	$655	$887	......	......	......	$686
48	Average earnings per family of children under 14 years.	$138	$69	$71	....	$95	$125	......	......	......	$96
49	Average earnings per child under 14 years.	$118	$63	$71	....	$76	$125	......	......	......	$82
50	Per cent of earnings of children under 14 years of gross income of families.	13.0	11.5	11.7	....	13.1	9.1	......	......	......	11.8
51	Per cent of earnings of children under 14 years of net income of families.	15.0	12.8	11.7	....	14.5	14.1	......	......	......	14.0
52	Families having income from other sources.	16	11	......	....	6	......	......	......	......	6
53	Average gross income per family.	$1,010	$608	......	....	$662	......	......	......	......	$662
54	Average net income (amount paid into family fund) per family.	$877	$528	......	....	$646	......	......	......	......	$646
55	Average income per family from other sources.	$56	$17	......	....	$13	......	......	......	......	$13
56	Per cent of income from other sources of gross income of families.	5.5	2.7	......	....	1.9	......	......	......	......	1.9
57	Per cent of income from other sources of net income of families.	6.4	3.1	......	....	2.0	......	......	......	......	2.0

SOURCES IN FAMILIES WITH FATHER AT WORK, MOTHER AT WORK, WORK, BY NATIVITY AND RACE, ETC.—Continued.

MARYLAND, VIRGINIA, TENNESSEE, SOUTH CAROLINA, GEORGIA—Concl'd.

Nativity and race of head of family.										Marginal number.
Foreign-born.									Total, all nativities.	
English.	French.	German.	Irish.	Italian, South.	Polish.	Other Slavs.	Other races.	Total.		
1	....	6	....	....	....	....	1	8	42	44
1	....	7	....	....	....	....	1	9	48	45
$453	....	$1,044	....	....	....	....	$700	$927	$892	46
$404	....	$927	....	....	....	....	$700	$833	$779	47
$95	....	$137	....	....	....	....	$64	$123	$113	48
$95	....	$118	....	....	....	....	$64	$109	$99	49
21.0	....	13.1	....	....	....	....	9.1	13.2	12.6	50
23.5	....	14.8	....	....	....	....	9.1	14.7	14.5	51
1	....	4	1	....	....	....	1	7	40	52
$453	....	$1,003	$1,632	....	....	....	$700	$971	$841	53
$404	....	$911	$1,394	....	....	....	$700	$877	746	54
$26	....	$26	$10	....	....	....	$12	$22	$33	55
5.7	....	2.6	0.6	....	....	....	1.7	2.3	3.9	56
6.4	....	2.9	0.7	....	....	....	1.7	2.5	4.4	57

TABLE XII.—TOTAL FAMILY INCOME AND INCOME FROM CERTAIN AND CHILDREN OF CERTAIN SPECIFIED AGES AT

ALL STATES.

Marginal number.	Composition of families, specified sources of income, etc.	Nativity and race of head of family.									
		Native of native parents.		Native of foreign parents.							
		White.	Colored.	English.	French.	German.	Irish.	Italian, South.	Polish.	Other races.	Total.
1	Total number of families....	787	83	27	8	154	77	1	1	2	270
2	Average gross income per family.	$947	$713	$902	$1,071	$993	$981	$235	$676	$960	$979
3	Average net income (amount paid into family fund) per family.	$839	$663	$837	$1,035	$934	$863	$235	$676	$866	$903
4	Families with father at work.	585	54	20	6	129	58	1	1	2	217
5	Average gross income per family.	$1,027	$780	$973	$1,208	$1,053	$1,009	$235	$676	$960	$1,032
6	Average net income (over amount paid into family fund) per family.	$919	$745	$936	$1,159	$997	$910	$235	$676	$866	$967
7	Average earnings of fathers.	$537	$391	$612	$854	$603	$600	$125	$500	$321	$605
8	Per cent of earnings of fathers of gross income of families.	52.2	50.1	62.9	70.7	57.3	59.4	53.2	74.0	33.4	58.6
9	Per cent of earnings of fathers of net income of families.	58.4	52.4	65.4	73.7	60.5	65.9	53.2	74.0	37.0	62.6
10	Families with mother at work.	115	56	7	....	16	14	......	......	......	37
11	Average gross income per family.	$640	$641	$573	....	$734	$772	......	......	......	$718
12	Average net income (amount paid into family fund) per family.	$593	$600	$518	....	$722	$622	......	......	......	$645
13	Average earnings of mothers.	$146	$167	$116	....	$119	$203	......	......	......	$150
14	Per cent of earnings of mothers of gross income of families.	22.8	26.1	20.2	....	16.2	26.4	......	......	......	21.0
15	Per cent of earnings of mothers of net income of families.	24.6	27.8	22.4	....	16.5	32.7	......	......	......	23.3
16	Families with males 16 years and over at work.	375	28	6	2	67	31	1	......	1	108
17	Number of males 16 years and over at work.	515	38	12	3	92	44	1	......	3	155
18	Average gross income per family.	$1,166	$996	$1,251	$1,549	$1,227	$1,169	$235	......	$1,178	$1,208
19	Average net income (amount paid into family fund) per family.	$969	$890	$1,012	$1,404	$1,107	$944	$235	......	$990	$1,051
20	Average earnings per family of males 16 years and over.	$506	$385	$604	$472	$494	$536	$50	......	$624	$509
21	Average amount per family paid into family fund by males 16 years and over.	$343	$280	$430	$472	$386	$339	$50	......	$436	$374
22	Average earnings per male 16 years and over.	$369	$284	$302	$315	$360	$378	$50	......	$208	$355
23	Average amount paid into family fund per male 16 years and over.	$250	$206	$215	$315	$281	$239	$50	......	$145	$260
24	Per cent of earnings of males 16 years and over of gross income of families.	43.4	38.7	48.2	30.5	40.3	45.8	21.3	......	53.0	42.1

SOURCES IN FAMILIES WITH FATHER AT WORK, MOTHER AT WORK, WORK, BY NATIVITY AND RACE, ETC.—Continued.

ALL STATES.

Nativity and race of head of family.										Marginal number.
Foreign-born.									Total, all nativities.	
English.	French.	German.	Irish.	Italian, South.	Polish.	Other Slavs.	Other races.	Total.		
77 $1,011	59 $1,051	296 $1,009	117 $967	50 $797	208 $828	135 $815	55 $1,045	997 $934	2,137 $936	1 2
$965	$1,000	$924	$843	$787	$777	$808	$947	$870	$855	3
58 $1,126	53 $1,088	199 $1,078	74 $1,012	47 $798	183 $853	119 $848	45 $1,103	778 $972	1,634 $994	4 5
$1,083	$1,050	$1,009	$921	$787	$799	$841	$1,010	$920	$920	6
$609	$567	$532	$501	$387	$401	$405	$603	$482	$515	7
54.1	52.1	49.4	49.6	48.4	47.0	47.7	54.7	49.6	51.8	8
56.3	54.0	52.8	54.4	49.1	50.2	48.1	59.7	52.4	56.0	9
7	5	33	14	7	7	4	6	83	291	10
$630	$785	$791	$755	$589	$677	$459	$566	$712	$671	11
$559	$785	$734	$593	$589	$562	$459	$556	$646	$616	12
$137	$140	$150	$212	$146	$184	$115	$145	$159	$154	13
21.7	17.9	18.9	28.1	24.8	27.3	25.1	25.6	22.4	23.0	14
24.5	17.9	20.4	35.7	24.8	32.8	25.1	26.1	24.7	25.1	15
35	24	163	61	14	91	59	26	473	984	16
50	31	239	100	17	133	68	38	676	1,384	17
$1,207	$1,340	$1,197	$1,243	$1,217	$1,086	$1,034	$1,285	$1,175	$1,170	18
$1,138	$1,236	$1,052	$1,038	$1,191	$974	$1,029	$1,091	$1,054	$1,017	19
$501	$532	$553	$617	$559	$522	$395	$541	$530	$515	20
$435	$438	$437	$442	$534	$414	$390	$360	$426	$384	21
$351	$412	$377	$376	$461	$357	$342	$374	$371	$366	22
$304	$339	$298	$270	$439	$283	$338	$249	$298	$273	23
41.5	39.7	46.2	49.6	46.0	48.1	38.2	42.1	45.1	44.0	24

TABLE XII.—TOTAL FAMILY INCOME AND INCOME FROM CERTAIN AND CHILDREN OF CERTAIN SPECIFIED AGES AT

ALL STATES—Continued.

Marginal number.	Composition of families, specified sources of income, etc.	Nativity and race of head of family.									
		Native of native parents.		Native of foreign parents.							
		White.	Colored.	English.	French.	German.	Irish.	Italian, South.	Polish.	Other races.	Total.
	Families with males 16 years and over at work—Concl'd.										
25	Per cent of amount paid into family fund by males 16 years and over of net income of families.	35.4	31.5	42.5	33.6	34.8	36.0	21.3	......	44.0	35.6
26	Families with females 16 years and over at work.	329	30	13	5	60	33	......	......	1	112
27	Number of females 16 years and over at work.	457	44	16	7	76	44	......	......	1	144
28	Average gross income per family.	$1,012	$823	$973	$1,320	$1,033	$1,077	......	......	$1,178	$1,053
29	Average net income (amount paid into family fund) per family.	$867	$745	$873	$1,262	$947	$886	......	......	$990	$934
30	Average earnings per family of females 16 years and over.	$276	$255	$277	$283	$256	$325	......	......	$230	$280
31	Average amount per family paid into family fund by females 16 years and over.	$224	$232	$240	$225	$233	$252	......	......	$230	$239
32	Average earnings per female 16 years and over.	$198	$174	$225	$202	$202	$244	......	......	$230	$218
33	Average amount paid into family fund per female 16 years and over.	$161	$158	$195	$161	$184	$189	......	......	$230	$186
34	Per cent of earnings of females 16 years and over of gross income of families.	27.2	31.0	28.4	21.4	24.8	30.2	......	......	19.5	26.6
35	Per cent of amount paid into family fund by females 16 years and over of net income of families.	25.8	31.2	27.5	17.8	24.6	28.4	......	......	23.2	25.6
36	Families with children 14 and 15 years at work.	572	42	18	5	113	52	1	1	1	191
37	Number of children 14 and 15 years at work.	614	47	19	5	121	55	1	1	1	203
38	Average gross income per family.	$962	$738	$908	$923	$985	$944	$235	$676	$741	$958
39	Average net income (amount paid into family fund) per family.	$863	$687	$875	$865	$957	$852	$235	$676	$741	$912
40	Average earnings per family of children 14 and 15 years.	$168	$170	$166	$172	$162	$150	$50	$176	$220	$159
41	Average earnings per child 14 and 15 years.	$157	$152	$157	$172	$151	$142	$50	$176	$220	$150
42	Per cent of earnings of children 14 and 15 years of gross income of families.	17.5	23.0	18.3	18.6	16.4	15.9	21.3	26.0	29.7	16.6
43	Per cent of earnings of children 14 and 15 years of net income of families.	19.5	24.8	18.9	19.8	16.9	17.6	21.3	26.0	29.7	17.4

SOURCES IN FAMILIES WITH FATHER AT WORK, MOTHER AT WORK, WORK, BY NATIVITY AND RACE, ETC.—Continued.

ALL STATES—Continued.

Nativity and race of head of family.										Marginal number.
Foreign-born.									Total, all nativities.	
English.	French.	German.	Irish.	Italian, South.	Polish.	Other Slavs.	Other races.	Total.		
38.2	35.5	41.5	42.6	44.8	42.5	37.9	33.0	40.4	37.8	25
36	31	162	64	12	78	61	14	458	929	26
55	41	240	98	14	90	70	17	625	1,270	27
$1,017	$1,090	$1,062	$1,164	$691	$949	$905	$1,069	$1,025	$1,017	28
$850	$1,033	$960	$1,006	$691	$888	$901	$986	$936	$905	29
$332	$256	$320	$332	$168	$226	$221	$279	$284	$280	30
$290	$240	$282	$292	$168	$217	$215	$237	$257	$242	31
$217	$194	$216	$217	$144	$196	$192	$229	$208	$204	32
$190	$182	$190	$190	$144	$188	$187	$195	$188	$177	33
32.6	23.5	30.2	28.5	24.2	23.9	24.4	26.1	27.7	27.5	34
34.1	23.2	29.4	29.0	24.2	24.5	23.9	24.0	27.4	26.7	35
57	43	211	75	42	172	109	48	757	1,562	36
64	49	222	80	47	192	124	54	832	1,696	37
$983	$1,046	$992	$840	$840	$817	$824	$1,041	$910	$930	38
$968	$1,007	$922	$769	$828	$766	$819	$934	$860	$863	39
$167	$177	$158	$130	$198	$158	$158	$167	$160	$163	40
$149	$155	$150	$122	$177	$142	$139	$149	$145	$150	41
17.0	16.9	15.9	15.5	23.6	19.4	19.2	16.1	17.6	17.5	42
17.3	17.5	17.1	17.0	24.0	20.6	19.3	17.9	18.6	18.9	43

TABLE XII.—TOTAL FAMILY INCOME AND INCOME FROM CERTAIN AND CHILDREN OF CERTAIN SPECIFIED AGES AT

ALL STATES—Concluded.

Marginal number.	Composition of families, specified sources of income, etc.	Nativity and race of head of family.									
		Native of native parents.		Native of foreign parents.							
		White.	Colored.	English.	French.	German.	Irish.	Italian, South.	Polish.	Other races.	Total.
44	Families with children under 14 years at work.	84	12	3	....	11	6	....	......	......	20
45	Number of children under 14 years at work.	95	14	3	....	12	6	....	......	......	21
46	Average gross income per family.	$892	$665	$682	....	$818	$735	....	......	......	$773
47	Average net income (amount paid into family fund) per family.	$811	$613	$682	....	$754	$652	....	......	......	$713
48	Average earnings per family of children under 14 years.	$132	$72	$117	....	$126	$94	....	......	......	$115
49	Average earnings per child under 14 years.	$117	$61	$117	....	$116	$94	....	......	......	$109
50	Per cent of earnings of children under 14 years of gross income of families.	14.8	10.8	17.2	....	15.4	12.7	....	......	......	14.9
51	Per cent of earnings of children under 14 years of net income of families.	16.3	11.7	17.2	....	16.7	14.3	....	......	......	16.1
52	Families having income from other sources.	325	35	10	4	68	26	1	......	2	111
53	Average gross income per family.	$912	$808	$1,000	$687	$948	$1,103	$235	......	$960	$973
54	Average net income (amount paid into family fund) per family.	$828	$750	$926	$687	$887	$938	$235	......	$866	$889
55	Average income per family from other sources.	$72	$54	$59	$57	$70	$91	$10	......	$102	$74
56	Per cent of income from other sources of gross income of families.	7.8	6.7	5.9	8.3	7.4	8.2	4.3	......	10.6	7.6
57	Per cent of income from other sources of net income of families.	8.6	7.2	6.3	8.3	7.9	9.7	4.3	......	11.8	8.3

SOURCES IN FAMILIES WITH FATHER AT WORK, MOTHER AT WORK, WORK BY NATIVITY AND RACE, ETC.—Concluded.

ALL STATES—Concluded.

Nativity and race of head of family.										Marginal number.
Foreign-born.									Total, all nativities.	
English.	French.	German.	Irish.	Italian, South.	Polish.	Other Slavs.	Other races.	Total.		
5	1	16	8	8	11	10	4	63	179	44
5	1	19	8	8	11	11	4	67	197	45
$942	$507	$953	$783	$664	$807	$528	$654	$775	$822	46
$924	$507	$856	$745	$664	$793	$482	$654	$734	$759	47
$117	$50	$125	$59	$131	$75	$159	$114	$112	$119	48
$117	$50	$105	$59	$131	$75	$144	$114	$105	$108	49
12.4	9.9	13.1	7.5	19.7	9.3	30.1	17.4	14.4	14.5	50
12.6	9.9	14.6	7.9	19.7	9.5	33.0	17.4	15.2	15.7	51
35	25	140	38	18	89	93	24	462	933	52
$1,032	$1,048	$1,006	$975	$749	$767	$835	$1,102	$922	$920	53
$972	$1,041	$920	$865	$740	$746	$828	$983	$870	$853	54
$59	$89	$72	$101	$75	$52	$61	$118	$71	$71	55
5.8	8.5	7.2	10.3	9.9	6.8	7.3	10.7	7.7	7.7	56
6.1	8.6	7.8	11.6	10.1	6.9	7.4	11.9	8.1	8.3	57

TABLE XIII.—CLASSIFIED INCOME OF FAMILIES HAVING CHILDREN UNDER 14 AT WORK, EXCLUDING EARNINGS OF SUCH CHILDREN.

This table relates only to families having children under 14 years of age at work and, classifying the families according to size, shows also the number of each specified size having annual income, after excluding the earnings of children under 14, of certain classified amounts. The data in regard to the family income were secured from the members of the family in the home, as described in the preceding table. The figures are necessarily only approximate. The probability of error in these figures is discussed in detail on page 508.

An examination of the section of the table relating to the first group shows that of the 130 representative families having children under 14 years of age at work from whom detailed information was secured only 25 had as few as 4 persons each, 15 had 5 persons each, 19, 6 persons, and 33, 9 or more members each. Of the 33 families with 9 or more members each, 1 had an income, excluding the earnings of children under 14, of under $300; 1 of between $300 and $399; 3 of $1,100 to $1,199; and 2 had an income of $2,000 or over. The figures relating to each group of States may be read in like manner.

TABLE XIII.—FAMILIES HAVING CHILDREN UNDER 14 YEARS OF AGE AT WORK, BY SIZE OF FAMILY, INCOME OF FAMILY (EXCLUDING EARNINGS OF CHILDREN UNDER 14 YEARS), AND STATE GROUPS.

Size of family.	Families having annual income (excluding earnings of children under 14) of—													Total families.
	Under $300.	$300 to $399.	$400 to $499.	$500 to $599.	$600 to $699.	$700 to $799.	$800 to $899.	$900 to $999.	$1,000 to $1,099.	$1,100 to $1,199.	$1,200 to $1,499.	$1,500 to $1,999.	$2,000 and over.	
PENNSYLVANIA, NEW JERSEY, WEST VIRGINIA.														
2 persons	1													1
3 persons	3	1	1	1										6
4 persons	2	7	2	2	1	2	1	1						18
5 persons	1	3	4		2	2		1	1		1			15
6 persons	4	2	4	3		2		2	1	1				19
7 persons	1	2	3	3	1		2	3	1		1	1		18
8 persons	3	2	1	1	5	1	1			3	3			20
9 persons and over	1	1	4	1	3	4	5	3		3	3	3	2	33
Total	16	18	19	11	12	11	9	10	3	7	8	4	2	130
NEW YORK, OHIO, INDIANA, ILLINOIS, WISCONSIN, MISSOURI.														
3 persons		1												1
4 persons		1			1									2
5 persons								1						1
6 persons				1	1									2
7 persons			1											1
Total		2	1	1	2			1						7
MARYLAND, VIRGINIA, TENNESSEE, SOUTH CAROLINA, GEORGIA.														
3 persons	1													1
4 persons			2		2	2	1							7
5 persons	1				1									2
6 persons	1			1	1	2	1				1			7
7 persons	1	1					1			1				4
8 persons			3	2	1					1	1			8
9 persons and over		1		1	3			1	2		3	1	1	13
Total	4	2	5	4	8	4	3	1	2	2	5	1	1	42

TABLE XIV.—CLASSIFIED INCOME OF FAMILIES HAVING CHILDREN UNDER 14 AT WORK, EXCLUDING EARNINGS OF SUCH CHILDREN, BY NATIVITY OF HEAD OF FAMILY.

Table XIV is in all respects like the preceding Table XIII in form, save that the families are grouped according to the nativity of the head of the family instead of according to groups of States. The table relates just as in the case of Table XIII only to families having children under 14 years of age at work, and classifying the families according to size shows the number of each specified size having annual income, after excluding the earnings of children under 14, of certain classified amounts. The families for which detailed data were secured are grouped according to the nativity of the head of the family, whether native of native parents, white; native of native parents, colored; native of foreign parents, foreign-born, and all nativities. The data in regard to family income were secured from the members of the family in the home, as described in connection with Table XII. The figures are necessarily only approximate, and the probability of error in them is discussed in detail on page 508.

An examination of the part of the table relating to families whose heads were foreign-born shows that of the 64 representative families of that class having children under 14 years of age at work from which detailed information was secured 14 had 5 persons or less each, 10 had 6 persons, 14 had 7 persons, 11 had 8 persons, and 15 families had 9 or more persons each. Of the whole number there were 9 families with incomes, excluding the earnings of children under 14, of less than $300, 9 with incomes of $300 to $399, 9 with incomes of $400 to $499, 2 with incomes of $1,500 to $1,999, and 1 with an income of $2,000 or more. The figures for the families of the other nativities may be studied in like manner.

TABLE XIV.—FAMILIES HAVING CHILDREN UNDER 14 YEARS OF AGE AT WORK, BY SIZE OF FAMILY AND INCOME OF FAMILY (EXCLUDING EARNINGS OF CHILDREN UNDER 14 YEARS) AND BY NATIVITY OF HEAD OF FAMILY, FOR ALL STATES COMBINED.

Nativity of head of family and size of family.	Families having annual income (excluding earnings of children under 14 years) of—													Total families.
	Under $300.	$300 to $399.	$400 to $499.	$500 to $599.	$600 to $699.	$700 to $799.	$800 to $899.	$900 to $999.	$1,000 to $1,099.	$1,100 to $1,199.	$1,200 to $1,499.	$1,500 to $1,999.	$2,000 or over.	
NATIVE OF NATIVE PARENTS: WHITE.														
3 persons	2	1												3
4 persons	1	4	2	2	1	3	2							15
5 persons		2	3		2	2								9
6 persons	2	2	1	2	2	2	1		1		1			14
7 persons			2	1				2	1		1	1		8
8 persons	1		1		1	1	1			1	3			9
9 persons and over		2	1	1	3	3	5	1		2	4	2	2	26
Total	6	11	10	6	9	11	9	3	2	3	9	3	2	84

TABLE XIV.—FAMILIES HAVING CHILDREN UNDER 14 YEARS OF AGE AT WORK, BY SIZE OF FAMILY AND INCOME OF FAMILY (EXCLUDING EARNINGS OF CHILDREN UNDER 14 YEARS) AND BY NATIVITY OF HEAD OF FAMILY, FOR ALL STATES COMBINED—Concluded.

Nativity of head of family and size of family.	Families having annual income (excluding earnings of children under 14 years) of—													Total families.
	Under $300.	$300 to $399.	$400 to $499.	$500 to $599.	$600 to $699.	$700 to $799.	$800 to $899.	$900 to $999	$1,000 to $1,099.	$1,100 to $1,199	$1,200 to $1,499.	$1,500 to $1,999.	$2,500 or over.	
NATIVE OF NATIVE PARENTS: COLORED.														
3 persons	1													1
4 persons			1		1									2
5 persons	1													1
6 persons	1													1
7 persons	1													1
8 persons			2		1					1				4
9 persons and over									1	1				2
Total	4		3		2				1	2				12
NATIVE OF FOREIGN PARENTS.														
3 persons	1	1		1										3
4 persons		1				1		1						3
5 persons			1					1	1					3
6 persons				1				2						3
8 persons			1	1	1						1			4
9 persons and over			1		2									3
Total	1	2	3	3	3	1		4	1		1			19
FOREIGN-BORN.														
2 persons	1													1
3 persons			1											1
4 persons	1	3	1		2									7
5 persons	1	1			1			1			1			5
6 persons	2		3	2		2				1				10
7 persons	1	3	2	2	1		3	1		1				14
8 persons	2	2		2	3					2				11
9 persons and over	1		2	1	1	1		3	1		2	2	1	15
Total	9	9	9	7	8	3	3	5	1	4	3	2	1	64
ALL NATIVITIES.														
2 persons	1													1
3 persons	4	2	1	1										8
4 persons	2	8	4	2	4	4	2	1						27
5 persons	2	3	4		3	2		2	1		1			18
6 persons	5	2	4	5	2	4	1	2	1	1	1			28
7 persons	2	3	4	3	1		3	3	1	1	1	1		23
8 persons	3	2	4	3	6	1	1			4	4			28
9 persons and over	1	2	4	2	6	4	5	4	2	3	6	4	3	46
Total	20	22	25	16	22	15	12	12	5	9	13	5	3	179

TABLE XV.—CLASSIFIED INCOME OF FAMILIES HAVING CHILDREN UNDER 16 AT WORK, EXCLUDING EARNINGS OF SUCH CHILDREN.

This table is in all respects like the preceding Table XIII in form and shows similar data for families having children under 16 at work. A study may be made of these figures in the same manner as was explained in connection with Table XIII.

TABLE XV.—FAMILIES HAVING CHILDREN UNDER 16 YEARS OF AGE AT WORK, BY SIZE OF FAMILY, INCOME OF FAMILY (EXCLUDING EARNINGS OF CHILDREN UNDER 16 YEARS), AND STATE GROUPS.

Size of family.	Families having annual income (excluding earnings of children under 16 years) of—													
	Under $300.	$300 to $399.	$400 to $499.	$500 to $599.	$600 to $699.	$700 to $799.	$800 to $899.	$900 to $999.	$1,000 to $1,099.	$1,100 to $1,199.	$1,200 to $1,499.	$1,500 to $1,999.	$2,000 and over.	Total families.
PENNSYLVANIA, NEW JERSEY, WEST VIRGINIA.														
2 persons	12	2	3	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	18
3 persons	19	13	7	5	2	3	.....	1	.....	.....	1	.....	1	52
4 persons	18	17	15	12	11	10	8	5	.....	1	6	.....	.....	103
5 persons	20	21	22	18	14	11	11	6	6	7	6	6	1	149
6 persons	25	24	21	16	28	20	15	10	10	4	17	4	4	198
7 persons	10	15	28	20	14	15	8	14	8	4	14	9	4	163
8 persons	16	11	15	21	15	12	11	9	10	5	15	9	4	153
9 persons and over	7	14	27	20	20	21	15	14	16	16	24	19	12	225
Total	127	117	138	112	104	93	68	59	50	37	83	47	26	1,061
NEW YORK, OHIO, INDIANA, ILLINOIS, WISCONSIN, MISSOURI.														
2 persons	5	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6
3 persons	8	8	6	9	2	2	.....	2	1	.....	.....	.....	.....	38
4 persons	3	8	9	13	10	3	5	2	7	1	5	2	.....	68
5 persons	3	6	10	7	7	6	5	7	2	2	3	2	5	65
6 persons	10	5	9	7	6	8	7	6	6	4	6	4	3	81
7 persons	5	11	12	11	8	9	11	11	3	8	3	6	3	101
8 persons	2	3	10	4	6	5	11	6	5	4	6	4	.....	66
9 persons and over	2	2	6	4	2	5	5	4	5	4	14	9	7	69
Total	38	44	62	55	41	38	44	38	29	23	37	27	18	494
MARYLAND, VIRGINIA, TENNESSEE, SOUTH CAROLINA, GEORGIA.														
2 persons	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
3 persons	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2
4 persons	2	3	1	.....	3	3	.....	1	.....	1	.....	.....	.....	14
5 persons	2	1	.....	1	2	.....	.....	.....	.....	.....	.....	.....	.....	6
6 persons	2	1	2	4	2	4	1	.....	1	.....	2	.....	.....	19
7 persons	.....	2	3	.....	2	1	.....	.....	.....	1	1	.....	.....	10
8 persons	.....	4	3	2	3	.....	1	3	.....	1	3	.....	.....	20
9 persons and over	.....	1	1	2	3	.....	2	1	1	.....	3	1	1	16
Total	9	12	10	9	15	8	4	5	2	3	9	1	1	88

TABLE XVI.—CLASSIFIED INCOME OF FAMILIES HAVING CHILDREN UNDER 16 AT WORK, EXCLUDING EARNINGS OF SUCH CHILDREN, BY NATIVITY OF HEAD OF FAMILY.

This table is in all respects like the preceding Table XIV in form and shows similar data for families having children under 16 at work. A study may be made of these figures in the same manner as was explained in connection with Table XIV.

TABLE XVI.—FAMILIES HAVING CHILDREN UNDER 16 YEARS OF AGE AT WORK, BY SIZE OF FAMILY AND INCOME OF FAMILY (EXCLUDING EARNINGS OF CHILDREN UNDER 16 YEARS) AND BY NATIVITY OF HEAD OF FAMILY, FOR ALL STATES COMBINED.

Nativity of head of family and size of family.	Families having annual income (excluding earnings of children under 16 years) of—													
	Under $300.	$300 to $399.	$400 to $499.	$500 to $599.	$600 to $699.	$700 to $799.	$800 to $899.	$900 to $999.	$1,000 to $1,099.	$1,100 to $1,199.	$1,200 to $1,499.	$1,500 to $1,999.	$2,000 and over.	Total families.
NATIVE OF NATIVE PARENTS: WHITE.														
2 persons	9	2	1	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	13
3 persons	11	9	4	5	4	1	.....	1	.....	.....	1	.....	1	37
4 persons	13	11	7	14	9	7	3	4	1	1	6	2	.....	78
5 persons	10	13	9	6	12	8	7	5	6	6	3	1	3	89
6 persons	12	7	14	9	17	12	8	5	6	5	9	3	2	109
7 persons	4	4	18	5	10	7	6	8	3	6	9	6	3	89
8 persons	4	6	8	8	11	7	10	9	7	2	12	2	2	88
9 persons and over	2	3	8	11	5	10	5	6	7	7	14	6	12	96
Total	65	55	69	58	68	53	39	38	30	27	54	20	23	599
NATIVE OF NATIVE PARENTS: COLORED.														
2 persons	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2
3 persons	2	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	3
4 persons	.....	2	4	.....	2	.....	1	.....	.....	.....	.....	.....	.....	9
5 persons	2	.....	2	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	5
6 persons	2	2	.....	2	.....	1	.....	.....	.....	.....	.....	1	.....	8
7 persons	.....	1	1	3	.....	.....	2	.....	.....	.....	.....	1	.....	8
8 persons	.....	2	2	2	.....	.....	.....	1	.....	1	.....	.....	.....	8
9 persons and over	.....	.....	.....	1	1	.....	1	.....	.....	1	.....	1	.....	5
Total	8	7	9	10	3	1	4	1	.....	2	.....	3	.....	48
NATIVE OF FOREIGN PARENTS.														
3 persons	9	3	2	4	.....	2	.....	1	1	.....	.....	.....	.....	22
4 persons	2	4	3	3	5	4	4	2	4	.....	3	.....	.....	34
5 persons	3	3	10	2	5	1	2	5	2	.....	3	2	2	40
6 persons	7	5	6	2	6	4	4	3	6	.....	3	1	4	51
7 persons	2	7	4	9	5	6	7	4	2	2	4	4	.....	56
8 persons	1	2	7	4	4	3	4	2	2	4	3	3	1	40
9 persons and over	2	4	4	3	3	4	3	3	6	1	9	8	3	53
Total	26	28	36	27	28	24	24	20	23	7	25	18	10	296
FOREIGN BORN.														
2 persons	7	1	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	10
3 persons	7	9	7	4	.....	2	.....	1	.....	.....	.....	.....	.....	30
4 persons	8	11	11	8	8	5	5	2	2	2	2	.....	.....	64
5 persons	10	12	11	17	6	8	7	3	.....	3	3	5	1	86
6 persons	16	16	12	14	13	15	11	8	5	3	13	3	1	130
7 persons	9	16	20	14	9	12	4	13	6	5	5	4	4	121
8 persons	13	8	11	13	9	7	9	6	6	3	9	8	1	103
9 persons and over	5	10	22	11	16	12	13	10	9	11	18	14	5	156
Total	75	83	96	81	61	61	49	43	28	27	50	34	12	700
ALL NATIVITIES.														
2 persons	18	3	3	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	25
3 persons	29	21	13	14	4	5	.....	3	1	.....	1	.....	1	92
4 persons	23	28	25	25	24	16	13	8	7	3	11	2	.....	185
5 persons	25	28	32	26	23	17	16	13	8	9	9	8	6	220
6 persons	37	30	32	27	36	32	23	16	17	8	25	8	7	298
7 persons	15	28	43	31	24	25	19	25	11	13	18	15	7	274
8 persons	18	18	28	27	24	17	23	18	15	10	24	13	4	239
9 persons and over	9	17	34	26	25	26	22	19	22	20	41	29	20	310
Total	174	173	210	176	160	139	116	102	81	63	129	75	45	1,643

TABLE XVII.—INCOME AND HOUSING CONDITIONS OF FAMILIES OWNING AND RENTING HOMES.

This table shows for three groups of States and for all States combined the housing conditions, the income, and the cost of rent, of representative families owning homes and renting homes either from the employing company or from other persons. The families are shown according to nativity, as native of native parents, native of foreign parents, or foreign born, and for all nativities combined. Each of the three separate groups is also divided according to race. The facts are shown by groups of States, as explained in connection with Table XI, and for the first two groups the data have been subdivided according to the size of the city or town in which the families lived. This latter classification was made for cities with population under 8,000, from 8,000 to 24,999, from 25,000 to 49,999, and 50,000 and over. In the third group the number of families from which reports were secured was so small that it was not thought desirable to subdivide them in this manner, so that the facts for that group are shown in a single table for all cities only. The families included in the table are the same as those included in Tables XI to XVI preceding and are in all cases families having one or more women or children employed in the glass factories covered by this investigation. The selection of the families has been explained in connection with Table XI. It should be said here, however, of the incomes that while they were secured from the members of the family in the home they are necessarily only approximate. The probability of error in the figures relating to income is discussed in detail on page 508.

An examination of that part of the table relating to cities with a population of under 8,000 in the first group shows a total of 775 families from which information was secured. Of these families 606, or 78.2 per cent, occupied separate houses, and 169, or 21.8 per cent, lived in apartment or tenement buildings. In the apartment or tenement buildings in which these 169 families lived, there was an average of 2.5 families in each building. This includes all families living in the building, whether included in this investigation or not. The average number of rooms per family used for sleeping purposes was 2.5, and the average number of persons per sleeping room was 2.7. The families owning their homes numbered 280, or 36.1 per cent, of the total families. In these families the average gross income per family was $971, and the average net income (amount paid into family fund per family) was $899, the difference being due to amounts retained for personal expenses by certain members of the family. The average number of rooms per family for families owning houses was 5.1. Similar information is presented for families renting houses. The information for each class of cities in the first two groups and for all cities in each of the three groups and in all States combined may be read in like manner.

TABLE XVII.—FAMILIES OWNING AND RENTING HOMES: INCOME OF RACE, FOR GROUPS OF STATES AND

PENNSYLVANIA, NEW JERSEY, WEST VIRGINIA.

CITIES WITH POPULATION UNDER 8,000.

Marginal number.		Nativity and race of head of family.									
		Native of native parents.		Native of foreign parents.							
		White.	Colored.	English.	French.	German.	Irish.	Italian, South.	Polish.	Other races.	Total.
	ALL FAMILIES.										
1	Total number of families	297	5	7	3	43	17	1	......	......	71
2	Number occupying separate house.	267	1	5	2	32	12	1	......	......	52
3	Per cent occupying separate house.	89.9	20.0	71.4	66.7	74.4	70.6	100.0	......	......	73.2
4	Number in apartment or tenement building.	30	4	2	1	11	5	......	......	......	19
5	Per cent in apartment or tenement building.	10.1	80.0	28.6	33.3	25.6	29.4	......	......	......	26.8
6	Average number of families per apartment or tenement building (including all families in such buildings).	2.6	2.0	3.0	3.0	2.5	2.2	......	......	......	2.5
7	Total number of persons sleeping in houses.	1,906	32	38	15	296	111	5	......	......	465
8	Total number of rooms used for sleeping.	791	14	17	7	116	49	2	......	......	191
9	Average number of rooms per family used for sleeping.	2.7	2.8	2.4	2.3	2.7	2.9	2.0	......	......	2.7
10	Average number of persons per sleeping room.	2.4	2.3	2.2	2.1	2.6	2.3	2.5	......	......	2.4
	FAMILIES OWNING HOMES.										
11	Number of families owning homes.	84	1	1	1	15	4	1	......	......	22
12	Per cent of families owning homes.	28.3	20.0	14.3	33.3	34.9	23.5	100.0	......	......	31.0
13	Average gross income per family.	$1,063	$1,790	$1,258	$1,135	$1,350	$980	$235	......	......	$1,218
14	Average net income (amount paid into family fund) per family.	$911	$1,540	$1,258	$1,135	$1,205	$934	$235	......	......	$1,111
15	Average number of rooms per family.	5.5	7.0	7.0	5.0	6.5	5.8	40	......	......	6.2
	FAMILIES RENTING HOMES.										
16	Number of families renting homes.	213	4	6	2	28	13	......	......	......	49
17	Per cent of families renting homes.	71.7	80.0	85.7	66.7	65.1	76.5	......	......	......	69.0
18	Number of families renting company houses.	11	1	......	......	......	......	......	......	......	......
19	Per cent of families renting company houses of families renting homes.	5.2	25.0	......	......	......	......	......	......	......	......
20	Average gross income per family.	$901	$685	$801	$1,410	$917	$1,103	......	......	......	$972
21	Average net income (amount paid into family fund) per family.	$805	$637	$674	$1,410	$874	$860	......	......	......	$867
22	Average rent paid per family per year.	$110	$87	$122	$150	$141	$134	......	......	......	$137
23	Per cent of gross income devoted to rent.	12.2	12.7	15.2	10.6	15.3	12.1	......	......	......	14.1
24	Per cent of net income devoted to rent.	13.6	13.7	18.1	10.6	16.1	15.6	......	......	......	15.8
25	Average number of rooms per family.	4.9	3.5	4.5	5.0	4.9	5.5	......	......	......	5.0
26	Average rent per room per month.	$1.86	$2.07	$2.26	$2.50	$2.38	$2.01	......	......	......	$2.26

FAMILY, COST OF RENT, AND HOUSING CONDITIONS, BY NATIVITY AND FOR ALL STATES COMBINED.

PENNSYLVANIA, NEW JERSEY, WEST VIRGINIA.

CITIES WITH POPULATION UNDER 8,000.

Nativity and race of head of family.										Marginal number.
Foreign-born.									Total, all nativities.	
English.	French.	German.	Irish.	Italian, South.	Polish.	Other Slavs.	Other races.	Total.		
34	43	83	18	29	88	83	24	402	775	1
26	28	58	10	21	70	58	15	286	606	2
76.5	65.1	69.9	55.6	72.4	79.5	69.9	62.5	71.1	78.2	3
8	15	25	8	8	18	25	9	116	169	4
23.5	34.9	30.1	44.4	27.6	20.5	30.1	37.5	28.9	21.8	5
2.0	2.3	2.5	2.3	2.1	2.3	3.0	2.0	2.4	2.5	6
228	240	600	131	208	649	587	171	2,814	5,217	7
96	103	226	48	79	190	168	58	968	1,964	8
2.8	2.4	2.7	2.7	2.7	2.2	2.0	2.4	2.4	2.5	9
2.4	2.3	2.7	2.7	2.6	3.4	3.5	2.9	2.9	2.7	10
15	27	36	3	17	26	38	11	173	280	11
44.1	62.8	43.4	16.7	58.6	29.5	45.8	45.8	43.0	36.1	12
$1,078	$908	$957	$1,033	$942	$795	$748	$969	$890	$971	13
$1,005	$894	$912	$960	$932	$783	$748	$873	$862	$899	14
6.1	4.7	5.1	7.3	4.8	4.1	4.2	5.6	4.8	5.1	15
19	16	47	15	12	62	45	13	229	495	16
55.9	37.2	56.6	83.3	41.4	70.5	54.2	54.2	57.0	63.9	17
....	....	1	1	....	....	....	....	2	14	18
....	....	2.1	6.7	....	....	....	....	0.9	2.8	19
$1,046	$1,040	$1,052	$888	$659	$653	$748	$864	$841	$878	20
$974	$983	$973	$832	$659	$633	$738	$794	$800	$807	21
$145	$121	$130	$111	$103	$75	$85	$102	$103	$109	22
13.9	11.6	12.4	12.5	15.6	11.5	11.3	11.8	12.2	12.4	23
14.9	12.3	13.4	13.4	15.6	11.9	11.5	12.8	12.8	13.5	24
5.1	4.6	5.1	4.4	4.2	3.7	3.1	4.1	4.1	4.6	25
$2.40	$2.21	$2.14	$2.11	$2.06	$1.69	$2.30	$2.08	$2.07	$2.00	26

TABLE XVII.—FAMILIES OWNING AND RENTING HOMES: INCOME OF RACE, FOR GROUPS OF STATES AND FOR

PENNSYLVANIA, NEW JERSEY, WEST VIRGINIA—Continued.

CITIES WITH POPULATION OF 8,000 TO 24,999.

Marginal number.		Nativity and race of head of family.									
		Native of native parents.		Native of foreign parents.							
		White.	Colored.	English.	French.	German.	Irish.	Italian, South.	Polish.	Other races.	Total.
	ALL FAMILIES.										
1	Total number of families	92	1	......	1	6	5	......	......	1	13
2	Number occupying separate house.	32	......	......	1	3	1	......	......	......	5
3	Per cent occupying separate house.	34.8	......	......	100.0	150.0	20.0	......	......	......	38.5
4	Number in apartment or tenement building.	60	1	......	......	3	4	......	......	1	8
5	Per cent in apartment or tenement building.	65.2	100.0	......	......	50.0	80.0	......	......	100.0	61.5
6	Average number of families per apartment or tenement building (including all families in such buildings).	2.1	2.0	......	......	2.0	2.0	......	......	2.0	2.0
7	Total number of persons sleeping in houses.	570	7	......	3	43	34	......	......	10	90
8	Total number of rooms used for sleeping.	297	3	......	3	20	15	......	......	3	41
9	Average number of rooms per family used for sleeping.	3.2	3.0	......	3.0	3.3	3.0	......	......	3.0	3.2
10	Average number of persons per sleeping room.	1.9	2.3	......	1.0	2.2	2.3	......	......	3.3	2.2
	FAMILIES OWNING HOMES.										
11	Number of families owning homes.	31	......	......	......	......	2	......	......	......	2
12	Per cent of families owning homes.	33.7	......	......	......	......	40.0	......	......	......	15.4
13	Average gross income per family.	$1,321	......	......	......	......	$1,250	......	......	......	$1,250
14	Average net income (amount paid into family fund) per family.	$1,179	......	......	......	......	$1,250	......	......	......	$1,250
15	Average number of rooms per family.	8.1	......	......	......	......	7.5	......	......	......	7.5
	FAMILIES RENTING HOMES.										
16	Number of families renting homes.	61	1	......	1	6	3	......	......	1	11
17	Per cent of families renting homes.	66.3	100.0	......	100.0	100.0	60.0	......	......	100.0	84.6
18	Number of families renting company houses.	21	......	......	......	2	1	......	......	1	4
19	Per cent of families renting company houses of families renting homes.	34.4	......	......	......	33.3	33.3	......	......	100.0	36.4
20	Average gross income per family.	$964	$758	......	$792	$1,074	$985	......	......	$1,178	$1,033
21	Average net income (amount paid into family fund) per family.	$893	$758	......	$792	$1,074	$945	......	......	$990	$1,005
22	Average rent paid per family per year.	$98	$84	......	$96	$94	$100	......	......	$84	$95
23	Per cent of gross income devoted to rent.	10.2	11.1	......	12.1	8.8	10.2	......	......	7.1	9.2
24	Per cent of net income devoted to rent.	11.0	11.1	......	12.1	8.8	10.5	......	......	8.5	9.4
25	Average number of rooms per family.	6.3	7.0	......	7.0	6.3	6.3	......	......	6.0	6.3
26	Average rent per room per month.	$1.31	$1.00	......	$1.14	$1.24	$1.32	......	......	$1.17	$1.24

FAMILY, COST OF RENT, AND HOUSING CONDITIONS, BY NATIVITY AND ALL STATES COMBINED—Continued.

PENNSYLVANIA, NEW JERSEY, WEST VIRGINIA—Continued.

CITIES WITH POPULATION OF 8,000 TO 24,999.

Nativity and race of head of family.										Marginal number.
Foreign-born.									Total, all nativities.	
English.	French.	German.	Irish.	Italian, South.	Polish.	Other Slavs.	Other races.	Total.		
5	5	10	8	5	5	2	1	41	147	1
1	2	6	2	3	4	1	1	20	57	2
20.0	40.0	60.0	25.0	60.0	80.0	50.0	100.0	48.8	38.8	3
4	3	4	6	2	1	1	....	21	90	4
80.0	60.0	40.0	75.0	40.0	20.0	50.0	....	51.2	61.2	5
2.5	2.0	2.0	2.0	2.0	2.0	2.0	....	2.1	2.1	6
29	29	68	54	24	39	11	4	258	925	7
14	15	38	24	10	15	7	1	124	465	8
2.8	3.0	3.8	3.0	2.0	3.0	3.5	1.0	3.0	3.2	9
2.1	1.9	1.8	2.3	2.4	2.6	1.6	4.0	2.1	2.0	10
....	1	3	2	1	3	....	....	10	43	11
....	20.0	30.0	25.0	20.0	60.0	....	....	24.4	29.3	12
....	$663	$1,047	$1,204	$932	$897	....	....	$984	$1,239	13
....	$663	$993	$1,168	$932	$897	....	....	$960	$1,132	14
....	8.0	8.3	7.0	4.0	7.0	....	....	7.2	7.8	15
5	4	7	6	4	2	2	1	31	104	16
100.0	80.0	70.0	75.0	80.0	40.0	100.0	100.0	75.6	70.7	17
1	1	3	5	....	1	....	....	11	36	18
20.0	25.0	42.9	83.3	....	50.0	....	....	35.5	34.6	19
$804	$1,093	$1,141	$831	$683	$697	$420	$771	$874	$943	20
$789	$1,023	$1,048	$823	$643	$697	$420	$588	$829	$885	21
$79	$114	$101	$82	$75	$84	$102	$60	$90	$95	22
9.8	10.4	8.9	9.9	11.0	12.1	24.3	7.8	10.3	10.1	23
10.0	11.1	9.6	10.0	11.7	12.1	24.3	10.2	10.8	10.8	24
5.4	6.0	7.6	5.7	4.3	4.5	7.0	3.0	5.8	6.2	25
$1.22	$1.58	$1.11	$1.21	$1.47	$1.56	$1.21	$1.67	$1.28	$1.29	26

TABLE XVII.—FAMILIES OWNING AND RENTING HOMES: INCOME OF RACE, FOR GROUPS OF STATES AND FOR

PENNSYLVANIA, NEW JERSEY, WEST VIRGINIA—Continued.

CITIES WITH POPULATION OF 25,000 TO 49,999.

Marginal number.		Nativity and race of head of family.									
		Native of native parents.		Native of foreign parents.							
		White.	Colored.	English.	French.	German.	Irish.	Italian, South.	Polish.	Other races.	Total.
	ALL FAMILIES.										
1	Total number of families	38	.....	2	1	10	.....	.....	.....	.....	13
2	Number occupying separate house.	18	.....	1	1	6	.....	.....	.....	.....	8
3	Per cent occupying separate house.	47.4	.....	50.0	100.0	60.0	.....	.....	.....	.....	61.5
4	Number in apartment or tenement building.	20	.....	1	.....	4	.....	.....	.....	.....	5
5	Per cent in apartment or tenement building.	52.6	.....	50.0	.....	40.0	.....	.....	.....	.....	38.5
6	Average number of families per apartment or tenement building (including all families in such buildings).	2.5	.....	2.0	.....	3.3	.....	.....	.....	.....	3.0
7	Total number of persons sleeping in houses.	237	.....	8	6	59	.....	.....	.....	.....	73
8	Total number of rooms used for sleeping.	73	.....	5	3	21	.....	.....	.....	.....	29
9	Average number of rooms per family used for sleeping.	1.9	.....	2.5	3.0	2.1	.....	.....	.....	.....	2.2
10	Average number of persons per sleeping room.	3.2	.....	1.6	2.0	2.8	.....	.....	.....	.....	2.5
	FAMILIES OWNING HOMES.										
11	Number of families owning homes.	7	.....	.....	.....	4	.....	.....	.....	.....	4
12	Per cent of families owning homes.	18.4	.....	.....	.....	40.0	.....	.....	.....	.....	30.8
13	Average gross income per family.	$742	.....	.....	.....	$679	.....	.....	.....	.....	$679
14	Average net income (amount paid into family fund) per family.	$547	.....	.....	.....	$663	.....	.....	.....	.....	$663
15	Average number of rooms per family.	4.4	.....	.....	.....	4.3	.....	.....	.....	.....	4.3
	FAMILIES RENTING HOMES.										
16	Number of families renting homes.	31	.....	2	1	6	.....	.....	.....	.....	9
17	Per cent of families renting homes.	81.6	.....	100.0	100.0	60.0	.....	.....	.....	.....	69.2
18	Number of families renting company houses.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
19	Per cent of families renting company houses of families renting homes.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
20	Average gross income per family.	$841	.....	$890	$2,210	$796	.....	.....	.....	.....	$974
21	Average net income (amount paid into family fund) per family.	$725	.....	$890	$1,920	$781	.....	.....	.....	.....	$932
22	Average rent paid per family per year.	$114	.....	$114	$180	$134	.....	.....	.....	.....	$135
23	Per cent of gross income devoted to rent.	13.5	.....	12.8	8.1	16.8	.....	.....	.....	.....	13.8
24	Per cent of net income devoted to rent.	15.7	.....	12.8	9.4	17.2	.....	.....	.....	.....	14.5
25	Average number of rooms per family.	3.6	.....	4.5	5.0	4.0	.....	.....	.....	.....	4.2
26	Average rent per room per month.	$2.63	.....	$2.11	$3.00	$2.79	.....	.....	.....	.....	$2.66

FAMILY, COST OF RENT, AND HOUSING CONDITIONS, BY NATIVITY AND ALL STATES COMBINED—Continued.

PENNSYLVANIA, NEW JERSEY, WEST VIRGINIA—Continued.

CITIES WITH POPULATION OF 25,000 TO 49,999.

Nativity and race of head of family.										Marginal number.
Foreign-born.									Total, all nativities.	
English.	French.	German.	Irish.	Italian, South.	Polish.	Other Slavs.	Other races.	Total.		
1	....	14	6	....	....	....	....	21	72	1
....	....	9	4	....	....	....	....	13	39	2
....	....	64.3	66.7	....	....	....	....	61.9	54.2	3
1	....	5	2	....	....	....	....	8	33	4
100.0	....	35.7	33.3	....	....	....	....	38.1	45.8	5
2.0	....	2.0	2.0	....	....	....	....	2.0	2.4	6
5	....	91	37	....	....	....	....	133	443	7
2	....	34	15	....	....	....	....	51	153	8
2.0	....	2.4	2.5	....	....	....	....	2.4	2.1	9
2.5	....	2.7	2.5	....	....	....	....	2.6	2.9	10
....	....	11	2	....	....	....	....	13	24	11
....	....	78.6	33.3	....	....	....	....	61.9	33.3	12
....	....	$1,057	$1,512	....	....	....	....	$1,127	$940	13
....	....	$981	$1,252	....	....	....	....	$1,023	$824	14
....	....	4.6	6.0	....	....	....	....	4.8	4.6	15
1	....	3	4	....	....	....	....	8	48	16
100.0	....	21.4	66.7	....	....	....	....	38.1	66.7	17
....	....	....	....	....	....	....	....	....	....	18
....	....	....	....	....	....	....	....	....	....	19
$1,370	....	$1,234	$1,066	....	....	....	....	$1,167	$920	20
$1,370	....	$1,108	$808	....	....	....	....	$991	$808	21
$156	....	$120	$117	....	....	....	....	$123	$119	22
11.4	....	9.7	11.0	....	....	....	....	10.5	13.0	23
11.4	....	10.8	14.5	....	....	....	....	12.4	14.8	24
5.0	....	4.0	4.0	....	....	....	....	4.1	3.8	25
$2.60	....	$2.50	$2.44	....	....	....	....	$2.48	$2.61	26

TABLE XVII.—FAMILIES OWNING AND RENTING HOMES: INCOME OF RACE, FOR GROUPS OF STATES AND FOR

PENNSYLVANIA, NEW JERSEY, WEST VIRGINIA—Continued.

CITIES WITH POPULATION OF 50,000 AND OVER.

Marginal number.		Nativity and race of head of family.									
		Native of native parents.		Native of foreign parents.							
		White.	Colored.	English.	French.	German.	Irish.	Italian, South.	Polish.	Other races.	Total.
	ALL FAMILIES.										
1	Total number of families....	61	......	6	....	29	26	......	......	......	61
2	Number occupying separate house.	40	......	3	....	18	19	......	......	......	40
3	Per cent occupying separate house.	65.6	......	50.0	....	62.1	73.1	......	......	......	65.6
4	Number in apartment or tenement building.	21	......	3	....	11	7	......	......	......	21
5	Per cent in apartment or tenement building.	34.4	......	50.0	....	37.9	26.9	......	......	......	34.4
6	Average number of families per apartment or tenement building (including all families in such buildings).	3.1	......	2.3	....	4.0	3.7	......	......	......	3.7
7	Total number of persons sleeping in houses.	391	......	39	....	191	181	......	......	......	411
8	Total number of rooms used for sleeping.	156	......	14	....	74	67	......	......	......	155
9	Average number of rooms per family used for sleeping.	2.6	......	2.3	....	2.6	2.6	......	......	......	2.5
10	Average number of persons per sleeping room.	2.5	......	2.8	....	2.6	2.7	......	......	......	27
	FAMILIES OWNING HOMES.										
11	Number of families owning homes.	5	......	......	....	9	1	......	......	......	10
12	Per cent of families owning homes.	8.2	......	......	....	31.0	3.8	......	......	......	16.4
13	Average gross income per family.	$901	......	......	....	$1,265	$866	......	......	......	$1,225
14	Average net income (amount paid into family fund) per family.	$733	......	......	....	$1,205	$866	......	......	......	$1,171
15	Average number of rooms per family.	5.2	......	......	....	4.8	4.0	......	......	......	4.7
	FAMILIES RENTING HOMES.										
16	Number of families renting homes.	56	......	6	....	20	25	......	......	......	51
17	Per cent of families renting homes.	91.8	......	100.0	....	69.0	96.2	......	......	......	83.6
18	Number of families renting company houses.	......	......	......	....	......	......	......	......	......	......
19	Per cent of families renting company houses of families renting homes.	......	......	......	....	......	......	......	......	......	......
20	Average gross income per family.	$867	......	$878	....	$807	$844	......	......	......	$834
21	Average net income (amount paid into family fund) per family.	$787	......	$813	....	$766	$722	......	......	......	$750
22	Average rent paid per family per year.	$130	......	$120	....	$129	$130	......	......	......	$128
23	Per cent of gross income devoted to rent.	15.0	......	13.7	....	16.0	15.3	......	......	......	15.4
24	Per cent of net income devoted to rent.	16.5	......	14.8	....	16.8	18.0	......	......	......	17.1
25	Average number of rooms per family.	4.3	......	4.3	....	4.5	4.4	......	......	......	4.4
26	Average rent per room per month.	$2.54	......	$2.31	....	$2.42	$2.48	......	......	......	$2.43

FAMILY, COST OF RENT, AND HOUSING CONDITIONS, BY NATIVITY AND ALL STATES COMBINED—Continued.

PENNSYLVANIA, NEW JERSEY, WEST VIRGINIA—Continued.

CITIES WITH POPULATION OF 50,000 AND OVER.

Nativity and race of head of family.										Marginal number.
Foreign-born.									Total, all nativities.	
English.	French.	German.	Irish.	Italian, South.	Polish.	Other Slavs.	Other races.	Total.		
11	1	69	52	10	78	8	13	242	364	1
8	....	37	37	4	15	....	6	107	187	2
72.7	....	53.6	71.2	40.0	19.2	....	46.2	44.2	51.4	3
3	1	32	15	6	63	8	7	135	177	4
27.3	100.0	46.4	28.8	60.0	80.8	100.0	53.8	55.8	48.6	5
2.0	2.0	2.4	2.3	6.2	3.0	3.8	2.7	2.9	3.0	6
77	4	399	352	77	510	63	87	1,569	2,371	7
33	2	156	132	21	150	16	33	543	854	8
3.0	2.0	2.3	2.5	2.1	1.9	2.0	2.5	2.2	2.3	9
2.3	2.0	2.6	2.7	3.7	3.4	3.9	2.6	2.9	2.8	10
2	....	28	8	....	25	....	2	65	80	11
18.2	....	40.6	15.4	....	32.1	....	15.4	26.9	22.0	12
$1,007	....	$1,076	$1,093	....	$1,098	....	$916	$1,077	$1,084	13
$976	....	$1,040	$970	....	$1,082	....	$916	$1,040	$1,037	14
6.3	....	4.0	5.3	....	3.7	....	5.0	4.2	4.3	15
9	1	41	44	10	53	8	11	177	284	16
81.8	100.0	59.4	84.6	100.0	67.9	100.0	84.6	73.1	78.0	17
....	....	....	....	....	....	....	....	....	....	18
....	....	....	....	....	....	....	....	....	....	19
$914	$1,599	$942	$777	$678	$835	$755	$889	$845	$847	20
$914	$653	$856	$729	$658	$737	$755	$825	$773	$772	21
$155	$120	$130	$118	$137	$103	$125	$129	$120	$124	22
16.9	7.5	13.8	15.2	20.2	12.3	16.5	14.5	14.2	14.6	23
16.9	18.4	15.2	16.2	20.8	13.9	16.5	15.6	15.6	16.0	24
4.6	3.0	3.7	4.2	3.4	2.6	2.9	4.2	3.5	3.8	25
$2.83	$3.33	$2.95	$2.33	$3.35	$3.31	$3.61	$2.57	$2.85	$2.70	26

TABLE XVII.—FAMILIES OWNING AND RENTING HOMES: INCOME OF RACE, FOR GROUPS OF STATES AND FOR

PENNSYLVANIA, NEW JERSEY, WEST VIRGINIA—Concluded.

ALL CITIES.

Marginal number.		Nativity and race of head of family.									
		Native of native parents.		Native of foreign parents.							
		White.	Colored.	English.	French.	German.	Irish.	Italian, South.	Polish.	Other races.	Total.
	ALL FAMILIES.										
1	Total number of families....	488	6	15	5	88	48	1	......	1	158
2	Number occupying separate house.	357	1	9	4	59	32	1	......	......	105
3	Per cent occupying separate house.	73.2	16.7	60.0	80.0	67.0	66.7	100.0	......	......	66.5
4	Number in apartment or tenement building.	131	5	6	1	29	16	......	......	1	53
5	Per cent in apartment or tenement building.	26.8	83.3	40.0	20.0	33.0	33.3	......	......	100.0	33.5
6	Average number of families per apartment or tenement building (including all families in such buildings).	2.4	2.0	2.5	3.0	3.1	2.8	......	......	2.0	2.9
7	Total number of persons sleeping in houses.	3,104	39	85	24	589	326	5	......	10	1,039
8	Total number of rooms used for sleeping.	1,317	17	36	13	231	131	2	......	3	416
9	Average number of rooms per family used for sleeping.	2.7	2.8	2.4	2.6	2.6	2.7	2.0	......	3.0	2.6
10	Average number of persons per sleeping room.	2.4	2.3	2.4	1.8	2.5	2.5	2.5	......	3.3	2.5
	FAMILIES OWNING HOMES.										
11	Number of families owning homes.	127	1	1	1	28	7	1	......	......	38
12	Per cent of families owning homes.	26.0	16.7	6.7	20.0	31.8	14.6	100.0	......	......	24.1
13	Average gross income per family.	$1,102	$1,790	$1,258	$1,135	$1,227	$1,041	$235	......	......	$1,165
14	Average net income (amount paid into family fund) per family.	$950	$1,540	$1,258	$1,135	$1,128	$1,014	$235	......	......	$1,087
15	Average number of rooms per family.	6.1	7.0	7.0	5.0	5.6	6.0	4.0	......	......	5.7
	FAMILIES RENTING HOMES.										
16	Number of families renting homes.	361	5	14	4	60	41	......	......	1	120
17	Per cent of families renting homes.	74.0	83.3	93.3	80.0	68.2	85.4	......	......	100.0	75.9
18	Number of families renting company houses.	32	1	......	......	2	1	......	......	1	4
19	Per cent of families renting company houses of families renting homes.	8.9	20.0	......	......	3.3	2.4	......	......	100.0	3.3
20	Average gross income per family.	$901	$699	$847	$1,455	$884	$936	......	......	$1,178	$919
21	Average net income (amount paid into family fund) per family.	$810	$661	$764	$1,383	$848	$782	......	......	$990	$835
22	Average rent paid per family per year.	$111	$86	$120	$144	$131	$129	......	......	$84	$129
23	Per cent of gross income devoted to rent.	12.4	12.4	14.2	9.9	14.9	13.8	......	......	7.1	14.1
24	Per cent of net income devoted to rent.	13.7	13.1	15.7	10.4	15.5	16.5	......	......	8.5	15.5
25	Average number of rooms per family.	4.9	4.2	4.4	5.5	4.8	4.9	......	......	6.0	4.8
26	Average rent per room per month.	$1.88	$1.71	$2.26	$2.18	$2.27	$2.20	......	......	$1.17	$2.23

FAMILY, COST OF RENT, AND HOUSING CONDITIONS, BY NATIVITY AND ALL STATES COMBINED—Continued.

PENNSYLVANIA, NEW JERSEY, WEST VIRGINIA—Concluded.

ALL CITIES.

Nativity and race of head of family.										Marginal number.
Foreign-born.									Total, all nativities.	
English.	French.	German.	Irish.	Italian, South.	Polish.	Other Slavs.	Other races.	Total.		
51	49	176	84	44	171	93	38	706	1,358	1
35	30	110	53	28	89	59	22	426	889	2
68.6	61.2	62.5	63.1	63.6	52.0	63.4	57.9	60.3	65.5	3
16	19	66	31	16	82	34	16	280	469	4
31.4	38.8	37.5	36.9	36.4	48.0	36.6	42.1	39.7	34.5	5
2.1	2.3	2.4	2.2	3.6	2.8	3.1	2.3	2.6	2.6	6
339	273	1,158	574	309	1,198	661	262	4,774	8,956	7
145	120	454	219	110	355	191	92	1,686	3,436	8
2.8	2.4	2.6	2.6	2.5	2.1	2.1	2.4	2.4	2.5	9
2.3	2.3	2.6	2.6	2.8	3.4	3.5	2.8	2.8	2.6	10
17	28	78	15	18	54	38	13	261	427	11
33.3	57.1	44.3	17.9	40.9	31.6	40.9	34.2	37.0	31.4	12
$1,059	$899	$1,018	$1,152	$941	$941	$748	$961	$952	$1,018	13
$995	$886	$971	$1,032	$932	$928	$748	$879	$918	$944	14
6.2	4.9	4.8	6.0	4.8	4.1	4.2	5.5	4.8	5.2	15
34	21	98	69	26	117	55	25	445	931	16
66.7	42.9	55.7	82.1	59.1	68.4	59.1	65.8	63.0	68.6	17
1	1	4	6	....	1	....	....	13	50	18
2.9	4.8	4.1	8.7	....	.9	....	....	2.9	5.4	19
$985	$1,076	$1,018	$823	$670	$736	$737	$871	$851	$878	20
$942	$975	$934	$764	$656	$681	$729	$800	$795	$805	21
$138	$119	$128	$114	$112	$88	$91	$112	$109	$112	22
14.0	11.1	12.6	13.8	16.7	11.9	12.4	12.8	12.8	12.8	23
14.7	12.2	13.7	14.9	17.0	12.9	12.5	14.0	13.7	14.0	24
5.0	4.8	4.6	4.4	3.9	3.2	3.2	4.1	4.0	4.5	25
$2.32	$2.09	$2.30	$2.16	$2.40	$2.28	$2.39	$2.28	$2.27	$2.10	26

TABLE XVII.—FAMILIES OWNING AND RENTING HOMES: INCOME OF RACE, FOR GROUPS OF STATES AND FOR

NEW YORK, OHIO, INDIANA, ILLINOIS, WISCONSIN, MISSOURI.

CITIES WITH POPULATION UNDER 8,000.

Marginal number.		Nativity and race of head of family.									
		Native of native parents.		Native of foreign parents.							
		White.	Colored.	English.	French.	German.	Irish.	Italian, South.	Polish.	Other races.	Total.
	ALL FAMILIES.										
1	Total number of families....	30	......	......	......	9	5	......	......	......	14
2	Number occupying separate house.	18	......	......	......	8	3	......	......	......	11
3	Per cent occupying separate house.	60.0	......	......	......	88.9	60.0	......	......	......	78.6
4	Number in apartment or tenement building.	12	......	......	......	1	2	......	......	......	3
5	Per cent in apartment or tenement building.	40.0	......	......	......	11.1	40.0	......	......	......	21.4
6	Average number of families per apartment or tenement building (including all families in such buildings).	2.8	......	......	......	2.0	2.0	......	......	......	2.0
7	Total number of persons sleeping in houses.	169	......	......	......	56	32	......	......	......	88
8	Total number of rooms used for sleeping.	71	......	......	......	23	10	......	......	......	33
9	Average number of rooms per family used for sleeping.	2.4	......	......	......	2.6	2.0	......	......	......	2.4
10	Average number of persons per sleeping room.	2.4	......	......	......	2.4	3.2	......	......	......	2.7
	FAMILIES OWNING HOMES.										
11	Number of families owning homes.	6	......	......	......	2	3	......	......	......	5
12	Per cent of families owning homes.	20.0	......	......	......	22.2	60.0	......	......	......	35.7
13	Average gross income per family.	$817	......	......	......	$1,717	$1,325	......	......	......	$1,482
14	Average net income (amount paid into family fund) per family.	$683	......	......	......	$1,717	$1,271	......	......	......	$1,449
15	Average number of rooms per family.	4.3	......	......	......	6.5	4.7	......	......	......	5.4
	FAMILIES RENTING HOMES.										
16	Number of families renting homes.	24	......	......	......	7	2	......	......	......	9
17	Per cent of families renting homes.	80.0	......	......	......	77.8	40.0	......	......	......	64.3
18	Number of families renting company houses.	......	......	......	......	2	......	......	......	......	2
19	Per cent of families renting company houses of families renting homes.	......	......	......	......	28.6	......	......	......	......	22.2
20	Average gross income per family.	$935	......	......	......	$1,246	$801	......	......	......	$1,147
21	Average net income (amount paid into family fund) per family.	$817	......	......	......	$1,018	$801	......	......	......	$970
22	Average rent paid per family per year.	$79	......	......	......	$93	$120	......	......	......	$99
23	Per cent of gross income devoted to rent.	8.4	......	......	......	7.4	15.0	......	......	......	8.6
24	Per cent of net income devoted to rent.	9.7	......	......	......	9.1	15.0	......	......	......	10.2
25	Average number of rooms per family.	3.9	......	......	......	5.4	5.0	......	......	......	5.3
26	Average rent per room per month.	$1.70	......	......	......	$1.42	$2.00	......	......	......	$1.54

FAMILY, COST OF RENT, AND HOUSING CONDITIONS, BY NATIVITY AND ALL STATES COMBINED—Continued.

NEW YORK, OHIO, INDIANA, ILLINOIS, WISCONSIN, MISSOURI.

CITIES WITH POPULATION UNDER 8,000.

Nativity and race of head of family.										Marginal number.
Foreign-born.									Total, all nativities.	
English.	French.	German.	Irish.	Italian, South.	Polish.	Other Slavs.	Other races.	Total.		
2	1	3	3	....	....	1	3	13	57	1
2	1	2	1	....	....	....	1	7	36	2
100.0	100.0	66.7	33.3	....	....	....	33.3	53.8	63.2	3
....	....	1	2	....	....	1	2	6	21	4
....	....	33.3	66.7	....	....	100.0	66.7	46.2	36.8	5
....	....	2.0	3.0	....	....	2.0	2.0	2.3	2.6	6
7	7	16	28	....	....	8	17	83	340	7
4	3	8	7	....	....	2	7	31	135	8
2.0	3.0	2.7	2.3	....	....	2.0	2.3	2.4	2.4	9
1.8	2.3	2.0	4.0	....	....	4.0	2.4	2.7	2.5	10
1	....	1	1	....	....	....	....	3	14	11
50.0	....	33.3	33.3	....	....	....	....	23.1	24.6	12
$215	....	$1,586	$1,324	....	....	....	....	$1,042	$1,102	13
$215	....	$1,586	$1,324	....	....	....	....	$1,042	$1,034	14
4.0	....	5.0	4.0	....	....	....	....	4.3	4.7	15
1	1	2	2	....	....	1	3	10	43	16
50.0	100.0	66.7	66.7	....	....	100.0	100.0	76.9	75.4	17
....	....	....	....	....	....	....	2	2	4	18
....	....	....	....	....	....	....	66.7	20.0	9.3	19
$1,535	$2,749	$589	$1,307	....	....	$1,164	$1,442	$1,357	$1,078	20
$1,535	$2,749	$521	$1,307	....	....	$1,164	$1,442	$1,343	$971	21
$192	$240	$90	$120	....	....	$120	$108	$130	$95	22
12.5	8.7	15.3	9.2	....	....	10.3	7.5	9.6	8.8	23
12.5	8.7	17.3	9.2	....	....	10.3	7.5	9.7	9.8	24
5.0	6.0	4.0	5.0	....	....	4.0	4.7	4.7	4.4	25
$3.20	$3.33	$1.88	$2.00	....	....	$2.50	$1.93	$2.30	$1.81	26

TABLE XVII.—FAMILIES OWNING AND RENTING HOMES: INCOME OF RACE, FOR GROUPS OF STATES AND FOR

NEW YORK, OHIO, INDIANA, ILLINOIS, WISCONSIN, MISSOURI—Continued.

CITIES WITH POPULATION OF 8,000 TO 24,999.

Marginal number.		Nativity and race of head of family.									
		Native of native parents.		Native of foreign parents.							
		White.	Colored.	English.	French.	German.	Irish.	Italian, South.	Polish.	Other races.	Total.
	ALL FAMILIES.										
1	Total number of families	111	2	7	3	27	18	......	......	......	55
2	Number occupying separate house.	76	1	6	3	21	11	......	......	......	41
3	Per cent occupying separate house.	68.5	50.0	85.7	100.0	77.8	61.1	......	......	......	74.5
4	Number in apartment or tenement building.	35	1	1	......	6	7	......	......	......	14
5	Per cent in apartment or tenement building.	31.5	50.0	14.3	......	22.2	38.9	......	......	......	25.5
6	Average number of families per apartment or tenement building (including all families in such buildings).	2.1	2.0	2.0	......	2.0	2.4	......	......	......	2.2
7	Total number of persons sleeping in houses.	638	11	51	20	152	114	......	......	......	337
8	Total number of rooms used for sleeping.	302	4	18	7	80	52	......	......	......	157
9	Average number of rooms per family used for sleeping.	2.7	2.0	2.6	2.3	3.0	2.9	......	......	......	2.9
10	Average number of persons per sleeping room.	2.1	2.8	2.8	2.9	1.9	2.2	......	......	......	2.1
	FAMILIES OWNING HOMES.										
11	Number of families owning homes.	36	1	1	3	15	5	......	......	......	24
12	Per cent of families owning homes.	32.4	50.0	14.3	100.0	55.6	27.8	......	......	......	43.6
13	Average gross income per family.	$905	$1,665	$357	$538	$803	$1,427	......	......	......	$881
14	Average net income (amount paid into family fund) per family.	$785	$1,665	$357	$538	$787	$1,427	......	......	......	$871
15	Average number of rooms per family.	5.4	3.0	4.0	4.0	5.8	6.0	......	......	......	5.5
	FAMILIES RENTING HOMES.										
16	Number of families renting homes.	75	1	6	......	12	13	......	......	......	31
17	Per cent of families renting homes.	67.6	50.0	85.7	......	44.4	72.2	......	......	......	56.4
18	Number of families renting company houses.	1	......	......	......	......	......	......	......	......	......
19	Per cent of families renting company houses of families renting homes.	1.3	......	......	......	......	......	......	......	......	......
20	Average gross income per family.	$861	$826	$1,285	......	$936	$948	......	......	......	$1,009
21	Average net income (amount paid into family fund) per family.	$759	$826	$1,187	......	$936	$843	......	......	......	$945
22	Average rent paid per family per year.	$116	$48	$134	......	$121	$133	......	......	......	$129
23	Per cent of gross income devoted to rent.	13.4	5.8	10.4	......	12.9	14.0	......	......	......	12.7
24	Per cent of net income devoted to rent.	15.2	5.8	11.3	......	12.9	15.8	......	......	......	13.6
25	Average number of rooms per family.	5.0	3.0	5.0	......	4.6	5.8	......	......	......	5.2
26	Average rent per room per month.	$1.94	$1.33	$2.23	......	$2.20	$1.92	......	......	......	$2.08

FAMILY, COST OF RENT, AND HOUSING CONDITIONS, BY NATIVITY AND ALL STATES COMBINED—Continued.

NEW YORK, OHIO, INDIANA, ILLINOIS, WISCONSIN, MISSOURI—Continued.

CITIES WITH POPULATION OF 8,000 TO 24,999.

Nativity and race of head of family.										Marginal number.
Foreign-born.									Total, all nativities.	
English.	French.	German.	Irish.	Italian, South.	Polish.	Other Slavs.	Other races.	Total.		
17 12	6 5	63 59	22 16	2 2	8 7	37 36	3 3	158 140	326 258	1 2
70.6	83.3	93.7	72.7	100.0	87.5	97.3	100.0	88.6	79.1	3
5	1	4	6	....	1	1	....	18	68	4
29.4	16.7	6.3	27.3	....	12.5	2.7	....	11.4	20.9	5
2.0	2.0	1.8	2.0	....	2.0	2.0	....	1.9	2.1	6
115	39	420	147	16	60	261	23	1,081	2,067	7
55	17	176	65	7	21	75	8	424	887	8
3.2	2.8	2.8	3.0	3.5	2.6	2.0	2.7	2.7	2.7	9
2.1	2.3	2.4	2.3	2.3	2.9	3.5	2.9	2.5	2.3	10
6	3	50	14	1	6	35	1	116	177	11
35.3	50.0	79.4	63.6	50.0	75.0	94.6	33.3	73.4	54.3	12
$990	$877	$963	$1,270	$1,338	$774	$995	$1,280	$1,005	$972	13
$896	$877	$835	$938	$1,338	$774	$987	$1,280	$902	$878	14
6.3	5.3	5.6	6.1	8.0	6.0	4.5	5.0	5.4	5.4	15
11	3	13	8	1	2	2	2	42	149	16
64.7	50.0	20.6	36.4	50.0	25.0	5.4	66.7	26.6	45.7	17
....	....	....	....	....	....	....	....	....	1	18
....	....	....	....	....	....	....	....	....	0.7	19
$1,079	$1,401	$1,109	$1,063	$852	$953	$559	$934	$1,065	$949	20
$1,060	$1,236	$972	$730	$852	$953	$559	$934	$943	$850	21
$113	$124	$116	$141	$24	$66	$78	$168	$117	$118	22
10.5	8.9	10.5	13.3	2.8	6.9	14.0	18.0	11.0	12.5	23
10.7	10.0	12.0	19.3	2.8	6.9	14.0	18.0	12.4	13.9	24
5.1	5.3	4.8	5.1	7.0	4.5	3.5	7.0	5.1	5.0	25
$1.86	$1.94	$2.00	$2.29	$0.29	$1.22	$1.86	$2.00	$1.92	$1.96	26

TABLE XVII.—FAMILIES OWNING AND RENTING HOMES: INCOME OF RACE, FOR GROUPS OF STATES AND FOR

NEW YORK, OHIO, INDIANA, ILLINOIS, WISCONSIN, MISSOURI—Continued.

CITIES WITH POPULATION OF 25,000 TO 49,999.

Marginal number.		Nativity and race of head of family.									
		Native of native parents.		Native of foreign parents.							
		White.	Colored.	English.	French.	German.	Irish.	Italian, South.	Polish.	Other races.	Total.
	ALL FAMILIES.										
1	Total number of families	61	37	2	......	3	2	......	......	1	8
2	Number occupying separate house.	55	29	2	......	......	2	......	......	1	5
3	Per cent occupying separate house.	90.2	78.4	100.0	......	......	100.0	......	......	100.0	62.5
4	Number in apartment or tenement building.	6	8	......	......	3	......	......	......	......	3
5	Per cent in apartment or tenement building.	9.8	21.6	......	......	100.0	......	......	......	......	37.5
6	Average number of families per apartment or tenement building (including all families in such building.)	2.2	4.1	......	......	3.3	......	......	......	......	3.3
7	Total number of persons sleeping in houses.	389	183	11	......	22	7	......	......	6	46
8	Total number of rooms used for sleeping.	166	77	4	......	7	4	......	......	3	18
9	Average number of rooms per family used for sleeping.	2.7	2.1	2.0	......	2.3	2.0	......	......	3.0	2.3
10	Average number of persons per sleeping room.	2.3	2.4	2.8	......	3.1	1.8	......	......	2.0	2.6
	FAMILIES OWNING HOMES.										
11	Number of families owning homes.	19	6	1	......	......	1	......	......	......	2
12	Per cent of families owning homes.	31.1	16.2	50.0	......	......	50.0	......	......	......	25.0
13	Average gross income per family.	$1,098	$1,270	$742	......	......	$725	......	......	......	$734
14	Average net income (amount paid into family fund) per family.	$1,040	$1,100	$742	......	......	$395	......	......	......	$569
15	Average number of rooms per family.	5.2	4.7	4.0	......	......	4.0	......	......	......	4.0
	FAMILIES RENTING HOMES.										
16	Number of families renting homes.	42	31	1	......	3	1	......	......	1	6
17	Per cent of families renting homes.	68.9	83.8	50.0	......	100.0	50.0	......	......	100.0	75.0
18	Number of families renting company houses.	......	2	......	......	......	......	......	......	......	......
19	Per cent of families renting company houses of families renting homes.	......	6.5	......	......	......	......	......	......	......	......
20	Average gross income per family.	$954	$637	$487	......	$1,579	$703	......	......	$741	$1,111
21	Average net income (amount paid into family fund) per family.	$836	$622	$487	......	$1,361	$685	......	......	$741	$999
22	Average rent paid per family per year.	$119	$92	$132	......	$124	$180	......	......	$120	$134
23	Per cent of gross income devoted to rent.	12.5	14.4	27.1	......	7.9	25.6	......	......	16.2	12.1
24	Per cent of net income devoted to rent.	14.3	14.8	27.1	......	9.1	26.3	......	......	16.2	13.4
25	Average number of rooms per family.	4.3	3.3	4.0	......	3.3	5.0	......	......	5.0	4.0
26	Average rent per room per month.	$2.31	$2.32	$2.75	......	$3.10	$3.00	......	......	$2.00	$2.79

FAMILY, COST OF RENT, AND HOUSING CONDITIONS, BY NATIVITY AND ALL STATES COMBINED—Continued.

NEW YORK, OHIO, INDIANA, ILLINOIS, WISCONSIN, MISSOURI—Continued.

CITIES WITH POPULATION OF 25,000 TO 49,999.

Nativity and race of head of family.										Marginal number.
Foreign-born.									Total, all nativities.	
English.	French.	German.	Irish.	Italian, South.	Polish.	Other Slavs.	Other races.	Total.		
2	....	8	2	....	....	....	8	20	126	1
2	....	7	2	....	....	....	8	19	108	2
100.0	....	87.5	100.0	....	....	....	100.0	95.0	85.7	3
....	....	1	....	....	....	....	....	1	18	4
....	....	12.5	....	....	....	....	....	5.0	14.3	5
....	....	5.0	....	....	....	....	....	5.0	3.4	6
13	....	62	8	....	....	....	58	141	759	7
7	....	22	4	....	....	....	26	59	320	8
3.5	....	2.8	2.0	....	....	....	3.3	3.0	2.5	9
1.9	....	2.8	2.0	....	....	....	2.2	2.4	2.4	10
2	....	3	....	....	....	....	4	9	36	11
100.0	....	37.5	....	....	....	....	50.0	45.0	28.6	12
$1,069	....	$846	....	....	....	....	$2,055	$1,433	$1,190	13
$1,069	....	$802	....	....	....	....	$1,555	$1,196	$1,063	14
6.0	....	4.0	....	....	....	....	5.8	5.2	5.1	15
....	....	5	2	....	....	....	4	11	90	16
....	....	62.5	100.0	....	....	....	50.0	55.0	71.4	17
....	....	....	....	....	....	....	....	....	2	18
....	....	....	....	....	....	....	....	....	2.2	19
....	....	$759	$990	....	....	....	$1,491	$1,067	$869	20
....	....	$759	$990	....	....	....	$1,345	$1,014	$795	21
....	....	$146	$96	....	....	....	$129	$131	$112	22
....	....	19.3	9.7	....	....	....	8.7	12.3	12.9	23
....	....	19.3	9.7	....	....	....	9.6	12.9	14.1	24
....	....	4.8	3.5	....	....	....	5.5	4.8	4.0	25
....	....	$2.54	$2.29	....	....	....	$1.95	$2.26	$2.34	26

TABLE XVII.—FAMILIES OWNING AND RENTING HOMES: INCOME OF RACE, FOR GROUPS OF STATES AND FOR

NEW YORK, OHIO, INDIANA, ILLINOIS, WISCONSIN, MISSOURI—Continued.

CITIES WITH POPULATION OF 50,000 AND OVER.

Marginal number.		Nativity and race of head of family.									
		Native of native parents.		Native of foreign parents.							
		White.	Colored.	English.	French.	German.	Irish.	Italian, South.	Polish.	Other races.	Total.
	ALL FAMILIES.										
1	Total number of families....	53	18	1	....	14	3	....	1	......	19
2	Number occupying separate house.	29	8	......	....	8	......	....	......	......	8
3	Per cent occupying separate house.	54.7	44.4	......	....	57.1	......	....	......	......	42.1
4	Number in apartment or tenement building.	24	10	1	....	6	3	....	1	......	11
5	Per cent in apartment or tenement building.	45.3	55.6	100.0	....	42.9	100.0	....	100.0	......	57.9
6	Average number of families per apartment or tenement building (including all families in such buildings).	2.8	4.8	6.0	....	4.3	3.3	....	6.0	......	4.4
7	Total number of persons sleeping in house.	328	78	5	....	88	16	....	6	......	115
8	Total number of rooms used for sleeping.	133	35	2	....	39	7	....	2	......	50
9	Average number of rooms per family used for sleeping.	2.5	1.9	2.0	....	2.8	2.3	....	2.0	......	2.6
10	Average number of persons per sleeping room.	2.5	2.2	2.5	....	2.3	2.3	....	3.0	......	2.3
	FAMILIES OWNING HOMES.										
11	Number of families owning homes.	6	2	......	....	4	......	....	......	......	4
12	Per cent of families owning homes.	11.3	11.1	......	....	28.6	......	....	......	......	21.1
13	Average gross income per family.	$1,076	$998	......	....	$984	......	....	......	......	$984
14	Average net income (amount paid into family fund) per family.	$861	$983	......	....	$984	......	....	......	......	$984
15	Average number of rooms per family.	6.1	4.0	......	....	6.0	......	....	......	......	6.0
	FAMILIES RENTING HOMES.										
16	Number of families renting homes.	47	16	1	....	10	3	....	1	......	15
17	Per cent of families renting homes.	88.7	88.9	100.0	....	71.4	100.0	....	100.0	......	78.9
18	Number of families renting company houses.	1	......	......	....	......	......	....	......	......	......
19	Per cent of families renting company houses of families renting homes.	2.1	......	......	....	......	......	....	......	......	......
20	Average gross income per family.	$994	$619	$524	....	$1,169	$671	....	$676	......	$993
21	Average net income (amount paid into family fund) per family.	$879	$584	$524	....	$1,033	$621	......	$676	......	$892
22	Average rent paid per family per year.	$126	$95	$168	....	$124	$144	....	$108	......	$130
23	Per cent of gross income devoted to rent.	12.7	15.4	32.1	....	10.6	21.5	....	16.0	......	13.0
24	Per cent of net income devoted to rent.	14.4	16.3	32.1	....	12.0	23.2	....	16.0	......	14.5
25	Average number of rooms per family.	4.6	2.9	4.0	....	4.7	4.3	....	4.0	......	4.5
26	Average rent per room per month.	$2.31	$2.70	$3.50	....	$2.19	$2.77	....	$2.25	......	$2.38

FAMILY, COST OF RENT, AND HOUSING CONDITIONS, BY NATIVITY AND ALL STATES COMBINED—Continued.

NEW YORK, OHIO, INDIANA, ILLINOIS, WISCONSIN, MISSOURI—Continued.

CITIES WITH POPULATION OF 50,000 AND OVER.

Nativity and race of head of family.										Marginal number.
Foreign-born.									Total, all nativities.	
English.	French.	German.	Irish.	Italian, South.	Polish.	Other Slavs.	Other races.	Total.		
4	3	36	5	4	29	4	2	87	177	1
3	1	19	1	1	13	2	1	41	86	2
75.0	33.3	52.8	20.0	25.0	44.8	50.0	50.0	47.1	48.6	3
1	2	17	4	3	16	2	1	46	91	4
25.0	66.7	47.2	80.0	75.0	55.2	50.0	50.0	52.9	51.4	5
6.0	2.0	3.4	3.5	6.7	2.8	6.0	2.0	3.5	3.5	6
22	20	233	30	19	235	27	12	598	1,119	7
11	8	84	14	10	60	9	5	201	419	8
2.8	2.7	2.3	2.8	2.5	2.1	2.3	2.5	2.3	2.4	9
2.0	2.5	2.8	2.1	1.9	3.9	3.0	2.4	3.0	2.7	10
1	1	18	2	....	14	2	....	38	50	11
25.0	33.3	50.0	40.0	....	48.3	50.0	....	43.7	28.2	12
$705	$1,495	$1,197	$1,497	....	$1,026	$1,142	....	$1,142	$1,115	13
$705	$1,495	$1,039	$1,139	....	$906	$1,067	....	$1,000	$981	14
5.0	7.0	4.4	6.5	....	3.9	4.5	....	4.4	4.8	15
3	2	18	3	4	15	2	2	49	127	16
75.0	66.7	50.0	60.0	100.0	51.7	50.0	100.0	56.3	71.7	17
....	....	1	....	....	....	....	....	1	2	18
....	....	5.6	....	....	....	....	....	2.0	1.6	19
$1,157	$1,583	$901	$739	$828	$958	$835	$432	$924	$920	20
$1,106	$1,583	$832	$620	$828	$838	$835	$432	$852	$833	21
$168	$132	$123	$104	$111	$89	$102	$120	$113	$118	22
14.5	8.3	13.7	14.1	13.4	9.3	12.2	27.8	12.2	12.8	23
15.2	8.3	14.8	16.8	13.4	10.6	12.2	27.8	13.2	14.1	24
5.0	4.5	4.2	4.0	3.5	3.7	3.0	5.0	4.0	4.1	25
$2.80	$2.44	$2.47	$2.17	$2.64	$1.98	$2.83	$2.00	$2.33	$2.37	26

TABLE XVII.—FAMILIES OWNING AND RENTING HOMES: INCOME OF RACE, FOR GROUPS OF STATES AND FOR

NEW YORK, OHIO, INDIANA, ILLINOIS, WISCONSIN, MISSOURI—Concluded.

ALL CITIES.

Marginal number.		Nativity and race of head of family.									
		Native of native parents.		Native of foreign parents.							
		White.	Colored.	English.	French.	German.	Irish.	Italian, South.	Polish.	Other races.	Total.
	ALL FAMILIES.										
1	Total number of families....	255	57	10	3	53	28	....	1	1	96
2	Number occupying separate house.	178	38	8	3	37	16	....	......	1	65
3	Per cent occupying separate house.	69.8	66.7	80.0	100.0	69.8	57.1	....	......	100.0	67.7
4	Number in apartment or tenement building.	77	19	2	....	16	12	....	1	......	31
5	Per cent in apartment or tenement building.	30.2	33.3	20.0	....	30.2	42.9	....	100.0	......	32.3
6	Average number of families per apartment or tenement building (including all families in such buildings).	2.4	4.4	4.0	....	3.1	2.6	....	6.0	......	3.1
7	Total number of persons sleeping in houses.	1,524	272	67	20	318	169	....	6	6	586
8	Total number of rooms used for sleeping.	672	116	24	7	149	73	....	2	3	258
9	Average number of rooms per family used for sleeping.	2.6	2.0	2.4	2.3	2.8	2.6	....	2.0	3.0	2.7
10	Average number of persons per sleeping room.	2.3	2.3	2.8	2.9	2.1	2.3	....	3.0	2.0	2.3
	FAMILIES OWNING HOMES.										
11	Number of families owning homes.	67	9	2	3	21	9	....	......	......	35
12	Per cent of families owning homes.	26.3	15.8	20.0	100.0	39.6	32.1	....	......	......	36.5
13	Average gross income per family.	$967	$1,254	$550	$538	$925	$1,315	....	......	......	$970
14	Average net income (amount paid into family fund) per family.	$855	$1,137	$550	$538	$913	$1,260	....	......	......	$949
15	Average number of rooms per family.	5.3	4.3	4.0	4.0	5.9	5.3	....	......	......	5.5
	FAMILIES RENTING HOMES.										
16	Number of families renting homes.	188	48	8	....	32	19	....	1	1	61
17	Per cent of families renting homes.	73.7	84.2	80.0	....	60.4	67.9	....	100.0	100.0	63.5
18	Number of families renting company houses.	2	2	......	....	2	......	....	......	......	2
19	Per cent of families renting company houses of families renting homes.	1.1	4.2	......	....	6.3	......	....	......	......	3.3
20	Average gross income per family.	$924	$635	$1,090	....	$1,137	$876	....	$676	$741	$1,035
21	Average net income (amount paid into family fund) per family.	$814	$613	$1,016	....	$1,024	$795	....	$676	$741	$941
22	Average rent paid per family per year.	$115	$92	$138	....	$116	$136	....	$108	$120	$125
23	Per cent of gross income devoted to rent.	12.4	14.5	12.7	....	10.2	15.5	....	16.0	16.2	12.1
24	Per cent of net income devoted to rent.	14.1	15.0	13.6	....	11.3	17.1	....	16.0	16.2	13.3
25	Average number of rooms per family.	4.6	3.2	4.8	....	4.7	5.4	....	4.0	5.0	4.9
26	Average rent per room per month.	$2.09	$2.42	$2.42	....	$2.06	$2.09	....	$2.25	$2.00	$2.12

FAMILY, COST OF RENT, AND HOUSING CONDITIONS, BY NATIVITY AND ALL STATES COMBINED—Continued.

NEW YORK, OHIO, INDIANA, ILLINOIS, WISCONSIN, MISSOURI—Concluded.

ALL CITIES.

Nativity and race of head of family.										Marginal number.
Foreign-born.									Total, all nativities.	
English.	French.	German.	Irish.	Italian, South.	Polish.	Other Slavs.	Other races.	Total.		
25	10	110	32	6	37	42	16	278	686	1
19	7	87	20	3	20	38	13	207	488	2
76.0	70.0	79.1	62.5	50.0	54.1	90.5	81.3	74.5	71.1	3
6	3	23	12	3	17	4	3	71	198	4
24.0	30.0	20.9	37.5	50.0	45.9	9.5	18.7	25.5	28.9	5
2.7	2.0	3.1	2.7	6.7	2.7	4.0	2.0	3.0	2.9	6
157	66	731	213	35	295	296	110	1,903	4,285	7
77	28	290	90	17	81	86	46	715	1,761	8
3.1	2.8	2.6	2.8	2.8	2.2	2.0	2.9	2.6	2.6	9
2.0	2.4	2.5	2.4	2.1	3.6	3.4	2.4	2.7	2.4	10
10	4	72	17	1	20	37	5	166	277	11
40.0	40.0	65.5	53.1	16.7	54.1	88.1	31.3	59.7	40.4	12
$900	$1,032	$1,025	$1,300	$1,338	$951	$1,003	$1,900	$1,060	$1,033	13
$843	$1,032	$895	$984	$1,338	$866	$991	$1,500	$943	$929	14
5.9	5.8	5.3	6.1	8.0	4.6	4.5	5.6	5.2	5.2	15
15	6	38	15	5	17	5	11	112	409	16
60.0	60.0	34.5	46.9	83.3	45.9	11.9	68.7	40.3	59.6	17
....	....	1	....	....	....	....	2	3	9	18
....	....	2.6	....	....	....	....	18.2	2.7	2.2	19
$1,125	$1,686	$937	$1,021	$832	$957	$790	$1,184	$1,030	$936	20
$1,101	$1,604	$854	$820	$832	$852	$790	$1,131	$946	$845	21
$130	$146	$122	$125	$94	$86	$96	$129	$118	$114	22
11.5	8.7	13.0	12.2	11.2	9.0	12.1	10.9	11.4	12.2	23
11.8	9.1	14.3	15.2	11.2	10.1	12.1	11.4	12.4	13.5	24
5.1	5.2	4.5	4.7	4.2	3.8	3.4	5.5	4.6	4.5	25
$2.13	$2.35	$2.28	$2.23	$1.86	$1.88	$2.35	$1.97	$2.15	$2.14	26

TABLE XVII.—FAMILIES OWNING AND RENTING HOMES: INCOME OF RACE, FOR GROUPS OF STATES AND FOR

MARYLAND, VIRGINIA, TENNESSEE, SOUTH CAROLINA, GEORGIA.

ALL CITIES.

Marginal number.		Nativity and race of head of family.									
		Native of native parents.		Native of foreign parents.							
		White.	Colored.	English.	French.	German.	Irish.	Italian, South.	Polish.	Other races.	Total.
	ALL FAMILIES.										
1	Total number of families	44	20	2	......	13	1	......	......	......	16
2	Number occupying separate house.	43	14	2	......	13	1	......	......	......	16
3	Per cent occupying separate house.	97.7	70.0	100.0	......	100.0	100.0	......	......	......	100.0
4	Number in apartment or tenement building.	1	6	......	......	......	......	......	......	......	......
5	Per cent in apartment or tenement building.	2.3	30.0	......	......	......	......	......	......	......	......
6	Average number of families per apartment or tenement building (including all families in such buildings).	2.0	2.0	......	......	......	......	......	......	......	......
7	Total number of persons sleeping in houses.	307	131	15	......	90	8	......	......	......	113
8	Total number of rooms used for sleeping.	124	42	5	......	35	3	......	......	......	43
9	Average number of rooms per family used for sleeping.	2.8	2.1	2.5	......	2.7	3.0	......	......	......	2.7
10	Average number of persons per sleeping room.	2.5	3.1	3.0	......	2.6	2.7	......	......	......	2.6
	FAMILIES OWNING HOMES.										
11	Number of families owning homes.	8	3	1	......	......	1	......	......	......	2
12	Per cent of families owning homes.	18.2	15.0	50.0	......	......	100.0	......	......	......	12.5
13	Average gross income per family.	$929	$393	$807	......	......	$1,369	......	......	......	$1,088
14	Average net income (amount paid into family fund) per family.	$855	$309	$807	......	......	$887	......	......	......	$847
15	Average number of rooms per family.	6.0	3.7	7.0	......	......	6.0	......	......	......	6.5
	FAMILIES RENTING HOMES.										
16	Number of families renting homes.	36	17	1	......	13	......	......	......	......	14
17	Per cent of families renting homes.	81.8	85.0	50.0	......	100.0	......	......	......	......	87.5
18	Number of families renting company houses.	2	......	......	......	......	......	......	......	......	......
19	Per cent of families renting company houses of families renting homes.	5.6	......	......	......	......	......	......	......	......	......
20	Average gross income per family.	$939	$646	$607	......	$751	......	......	......	......	$741
21	Average net income (amount paid into family fund) per family.	$840	$564	$607	......	$729	......	......	......	......	$721
22	Average rent paid per family per year.	$107	$70	$96	......	$116	......	......	......	......	$115
23	Per cent of gross income devoted to rent.	11.4	10.8	15.8	......	15.5	......	......	......	......	15.5
24	Per cent of net income devoted to rent.	12.8	12.3	15.8	......	15.9	......	......	......	......	15.9
25	Average number of rooms per family.	5.3	3.5	6.0	......	6.0	......	......	......	......	6.0
26	Average rent per room per month.	$1.69	$1.67	$1.33	......	$1.62	......	......	......	......	$1.60

FAMILY, COST OF RENT, AND HOUSING CONDITIONS, BY NATIVITY AND ALL STATES COMBINED—Continued.

MARYLAND, VIRGINIA, TENNESSEE, SOUTH CAROLINA, GEORGIA.

ALL CITIES.

Nativity and race of head of family.										Marginal number.
Foreign-born.									Total, all nativities.	
English.	French.	German.	Irish.	Italian, South.	Polish.	Other Slavs.	Other races.	Total.		
1	....	10	1	....	....	....	1	13	93	1
1	....	9	1	....	....	....	1	12	85	2
100.0	....	90.0	100.0	....	....	....	100.0	92.3	91.4	3
....	....	1	....	....	....	....	....	1	8	4
....	....	10.0	....	....	....	....	....	7.7	8.6	5
....	....	4.0	....	....	....	....	....	4.0	2.3	6
8	....	77	6	....	....	....	5	96	647	7
3	....	31	3	....	....	....	2	39	248	8
3.0	....	3.1	3.0	....	....	....	2.0	3.0	2.7	9
2.7	....	2.5	2.0	....	....	....	2.5	2.5	2.6	10
....	....	6	1	....	....	....	....	7	20	11
....	....	60.0	100.0	....	....	....	....	53.8	21.5	12
....	....	$979	$1,632	....	....	....	....	$1,072	$915	13
....	....	$924	$1,394	....	....	....	....	$991	$820	14
....	....	6.0	6.0	....	....	....	....	6.0	5.7	15
1	....	4	....	....	....	....	1	6	73	16
100.0	....	40.0	....	....	....	....	100.0	46.2	78.5	17
....	....	....	....	....	....	....	....	....	2	18
....	....	....	....	....	....	....	....	....	2.7	19
$453	....	$1,083	....	....	....	....	$700	$914	$830	20
$404	....	$950	....	....	....	....	$700	$817	$751	21
$120	....	$113	....	....	....	....	$90	$110	$100	22
26.5	....	10.4	....	....	....	....	12.9	12.0	12.1	23
29.7	....	11.8	....	....	....	....	12.9	13.5	13.3	24
6.0	....	5.5	....	....	....	....	6.0	5.7	5.0	25
$1.67	....	$1.70	....	....	....	....	$1.25	$1.62	$1.66	26

TABLE XVII.—FAMILIES OWNING AND RENTING HOMES: INCOME OF RACE, FOR GROUPS OF STATES AND FOR

ALL STATES.

ALL CITIES.

Marginal number.		Nativity and race of head of family.									
		Native of native parents.		Native of foreign parents.							
		White.	Colored.	English.	French.	German.	Irish.	Italian, South.	Polish.	Other races.	Total.
	ALL FAMILIES.										
1	Total number of families	787	83	27	8	154	77	1	1	2	270
2	Number occupying separate house.	578	53	19	7	109	49	1	......	1	186
3	Per cent occupying separate house.	73.4	63.9	70.4	87.5	70.8	63.6	100.0	......	50.0	68.9
4	Number in apartment or tenement building.	209	30	8	1	45	28	......	1	1	84
5	Per cent in apartment or tenement building.	26.6	36.1	29.6	12.5	29.2	36.4	......	100.0	50.0	31.1
6	Average number of families per apartment or tenement building (including all families in such buildings).	2.4	3.5	2.9	3.0	3.1	2.7	......	6.0	2.0	3.0
7	Total number of persons sleeping in houses.	4,935	442	167	44	997	503	5	6	16	1,738
8	Total number of rooms used for sleeping.	2,113	175	65	20	415	207	2	2	6	717
9	Average number of rooms per family used for sleeping.	2.7	2.1	2.4	2.5	2.7	2.7	2.0	2.0	3.0	2.7
10	Average number of persons per sleeping room.	2.3	2.5	2.6	2.2	2.4	2.4	2.5	3.0	2.7	2.4
	FAMILIES OWNING HOMES.										
11	Number of families owning homes.	202	13	4	4	49	17	1	......	......	75
12	Per cent of families owning homes.	25.7	15.7	14.8	50.0	31.8	22.1	100.0	......	......	27.8
13	Average gross income per family.	$1,050	$1,096	$791	$687	$1,098	$1,205	$235	......	......	$1,072
14	Average net income (amount paid into family fund) per family.	$914	$977	$791	$687	$1,036	$1,137	$235	......	......	$1,016
15	Average number of rooms per family.	5.8	4.4	5.5	4.3	5.7	5.6	4.0	......	......	5.6
	FAMILIES RENTING HOMES.										
16	Number of families renting homes.	585	70	23	4	105	60	......	1	2	195
17	Per cent of families renting homes.	74.3	84.3	85.2	50.0	68.2	77.9	......	100.0	100.0	72.2
18	Number of families renting company houses.	36	3	......	......	4	1	......	......	1	6
19	Per cent of families renting company houses of families renting homes.	6.2	4.3	......	......	3.8	1.7	......	......	50.0	3.1
20	Average gross income per family.	$911	$642	$921	$1,455	$945	$917	......	$676	$960	$943
21	Average net income (amount paid into family fund) per family.	$813	$605	$845	$1,383	$887	$786	......	$676	$866	$860
22	Average rent paid per family per year.	$112	$86	$125	$144	$125	$131	......	$108	$102	$127
23	Per cent of gross income devoted to rent.	12.3	13.4	13.6	9.9	13.2	14.3	......	16.0	10.6	13.5
24	Per cent of net income devoted to rent.	13.8	14.2	14.8	10.4	14.1	16.7	......	16.0	11.8	14.7
25	Average number of rooms per family.	4.8	3.3	4.6	5.5	4.9	5.1	......	4.0	5.5	4.9
26	Average rent per room per month.	$1.93	$2.17	$2.26	$2.18	$2.11	$2.16	......	$2.25	$1.55	$2.14

FAMILY, COST OF RENT, AND HOUSING CONDITIONS, BY NATIVITY AND ALL STATES COMBINED—Concluded.

ALL STATES.

ALL CITIES.

Nativity and race of head of family.										Marginal number.
Foreign-born.									Total, all nativities.	
English.	French.	German.	Irish.	Italian, South.	Polish.	Other Slavs.	Other races.	Total.		
77 55	59 37	296 206	117 74	50 31	208 109	135 97	55 36	997 645	2,137 1,462	1 2
71.4	62.7	69.6	63.2	62.0	52.4	71.9	65.5	64.7	68.4	3
22	22	90	43	19	99	38	19	352	675	4
28.6	37.3	30.4	36.8	38.0	47.6	28.1	34.5	35.3	31.6	5
2.3	2.2	2.6	2.3	4.1	2.8	3.2	2.3	2.7	2.7	6
504	339	1,966	793	344	1,493	957	377	6,773	13,888	7
225	148	775	312	127	436	277	140	2,440	5,445	8
2.9	2.5	2.6	2.7	2.5	2.1	2.1	2.5	2.4	2.5	9
2.2	2.3	2.5	2.5	2.7	3.4	3.5	2.7	2.8	2.6	10
27	32	156	33	19	74	75	18	434	724	11
35.1	54.2	52.7	28.2	38.0	35.6	55.6	32.7	43.5	33.9	12
$1,000	$915	$1,019	$1,243	$962	$943	$874	$1,222	$995	$1,020	13
$939	$904	$934	$1,018	$954	$911	$868	$1,052	$929	$935	14
6.1	5.0	5.0	6.0	4.9	4.2	4.3	5.6	4.9	5.2	15
50	27	140	84	31	134	60	37	563	1,413	16
64.9	45.8	47.3	71.8	62.0	64.4	44.4	67.3	56.5	66.1	17
1	1	5	6	....	1	....	2	16	61	18
2.0	3.7	3.6	7.1	....	0.7	....	5.4	2.8	4.3	19
$1,016	$1,212	$998	$858	$696	$764	$742	$959	$887	$892	20
$979	$1,115	$912	$774	$685	$703	$734	$895	$825	$814	21
$135	$125	$126	$116	$109	$88	$92	$116	$111	$112	22
13.3	10.3	12.6	13.5	15.6	11.5	12.3	12.1	12.5	12.6	23
13.8	11.2	13.8	14.9	15.9	12.5	12.5	13.0	13.4	13.8	24
5.0	4.9	4.6	4.4	3.9	3.3	3.2	4.5	4.1	4.5	25
$2.25	$2.15	$2.27	$2.17	$2.30	$2.22	$2.39	$2.13	$2.24	$2.08	26

TABLE XVIII.—CHILDREN UNDER 14 AT WORK AND ECONOMIC CONDITION OF THEIR FAMILIES.

This table shows for groups of States and for all States combined, for the families having children under 14 years of age at work, the economic condition of the families grouped according to the condition as to parents, as the children were orphans, children of widows, of deserted mothers, of incapacitated fathers, of idle fathers, with both parents at work, or with fathers but not mothers at work. The selection of the representative families and the securing of the detailed data upon which this table is based are fully explained in connection with Table XXVII. The facts in regard to family income being secured from members of the family in the home are necessarily only approximate. The probability of error in these figures is discussed in detail on page 508. The number of children under 14 years of age employed in the glass factories was so small that no attempt has been made to show these facts for each State separately. But they are presented in two groups, the first group relating to Maryland, Virginia, Tennessee, South Carolina, and Georgia, and the second group including all of the other States into which the investigation was carried and in which childern under 14 years of age were employed. No such children were found in the families visited in Indiana, Illinois, or Wisconsin, and only one was found in New York, although in Indiana, children under 14 were found in some of the establishments investigated.

Reference to that part of the table relating to all States shows that the families from which reports were obtained contained 197 children under 14 years of age at work. Of these 34, or 17.2 per cent, were children of widows, 9 were children of divorced or deserted mothers, 1 the child of an incapacitated father, 1 of an idle father, 24 were children with both parents at work, and in the case of 128, or 65 per cent of the entire number, the fathers but not the mothers were at work. Of these children it is shown that 24, or 12.2 per cent of the entire number, were unable to read and write, 14 of these children being in the families with fathers but not mothers at work, 6 in families with both parents at work, and 4 in the families of widows. With regard to the families, it is shown that these 197 children came from 179 families, the average size of a family being 6.8, varying from 4.2, the average size of the 9 families with deserted mothers, to 7.6, the size of the 128 families with fathers at work. In the single case of the family with the incapacitated father, the number of persons in the family was 8. Under average income of families there are shown for each group of families the average earnings of the children under 14 and the average family income, excluding the earnings of the children under 14. These facts are followed by a column showing the average per capita weekly income, excluding the earnings of the children under 14, which in turn is followed by a group of columns showing the families with per capita weekly income, excluding the earnings of children under 14, of less than $1, less than $1.50, less than $2, and $2 and over. From an examination of these columns it will be seen that for all the families the average per capita weekly income, excluding the earnings of children under 14, was $1.97, and that in 30 families, or 16.8 per cent of all, the per capita weekly income on the same basis was less than $1, in 62 families it was less than $1.50, and in 106 families, or 59.2 per cent, it was less than $2. The section of the table relating to the groups of States may be read in like manner.

TABLE XVIII.—CHILDREN UNDER 14 YEARS OF AGE AT WORK; ILLIT WIDOWS, DESERTED MOTHERS, IDLE FATHERS, FATHERS AT WORK,

Condition as to parents.	Children under 14 years of age at work.				
	Number.	Per cent of total.	Unable to read and write.		Families having such children.
			Number.	Per cent.	
SOUTHERN STATES.					
Orphans					
Children of widows	5	10.4	1	20.0	5
Children of deserted mothers	2	4.2			2
Children of incapacitated fathers					
Children of idle fathers					
Children with both parents at work	10	20.8	6	60.0	8
Children with fathers but not mothers at work	31	64.6	6	19.4	27
Total	48	100.0	13	27.1	42
OTHER THAN SOUTHERN STATES.					
Orphans					
Children of widows	29	19.4	3	10.3	26
Children of deserted mothers	7	4.7			7
Children of incapacitated fathers	1	.7			1
Children of idle fathers	1	.7			1
Children with both parents at work	14	9.4			12
Children with fathers but not mothers at work	97	65.1	8	8.2	90
Total	149	100.0	11	7.4	137
ALL STATES.					
Orphans					
Children of widows	34	17.2	4	11.8	31
Children of deserted mothers	9	4.6			9
Children of incapacitated fathers	1	.5			1
Children of idle fathers	1	.5			1
Children with both parents at work	24	12.2	6	25.0	20
Children with fathers but not mothers at work	128	65.0	14	10.9	117
Total	197	100.0	24	12.2	179

TABLE XIX.—CHILDREN 14 AND 15 AT WORK AND ECONOMIC CONDITION OF THEIR FAMILIES.

This table shows for each State and for all States combined, for families having children 14 and 15 years of age at work, the economic condition of the families, grouped according to the condition as to parents, as the children were orphans, children of widows, of deserted mothers, of incapacitated fathers, of idle fathers, with both parents at work, or with fathers but not mothers at work. The facts are also combined in two groups, the first group including the States of Maryland, Virginia, Tennessee, South Carolina, and Georgia, and the second containing all other States into which the investigation was carried. The selection of the representative families and the securing of the detailed data upon which this table is based are fully explained in connection with Table XXVII. The figures in regard to family income being secured from members of the family in the home are necessarily only approximate. The probability of error in these figures is discussed in detail on page 508.

Reference to that part of the table relating to New York shows that the families from which reports were obtained contained 50 children

ERACY OF CHILDREN AND ECONOMIC CONDITION OF FAMILIES OF ETC., FOR GROUPS OF STATES AND FOR ALL STATES COMBINED.

Families having children under 14 at work.											
Average size of family.	Average family income.		Average per capita weekly income, excluding earnings of children under 14 years.	Having per capita weekly income (excluding earnings of children under 14 years) of—							
	Earnings of children under 14 years.	Excluding earnings of children under 14 years.		Less than $1.		Less than $1.50.		Less than $2.		$2 and over.	
				Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
......	......	......	......	......	......	......	......	......	......	......	......
4.8	$118	$517	$2.07	1	20.0	1	20.0	2	40.0	3	60.0
4.5	201	427	1.82	1	50.0	1	50.0	1	50.0	1	50.0
......	......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......	......
7.0	94	591	1.62	3	37.5	4	50.0	4	50.0	4	50.0
8.3	113	907	2.11	1	3.7	10	37.0	13	48.1	14	51.9
7.4	114	778	2.01	6	14.3	16	38.1	20	47.6	22	52.4
......	......	......	......	......	......	......	......	......	......	......	......
4.6	150	417	1.65	7	26.9	13	50.0	17	65.4	9	34.6
4.1	93	382	1.78	1	14.3	1	14.3	5	71.4	2	28.6
8.0	261	372	.89	1	100.0	1	100.0	1	100.0	......	......
7.0	144	398	1.09	......	......	1	100.0	1	100.0	......	......
6.8	117	585	1.65	2	16.7	6	50.0	10	83.3	2	16.7
7.4	113	796	2.06	13	14.4	24	26.7	52	57.8	38	42.2
6.7	121	679	1.94	24	17.5	46	33.6	86	62.8	51	37.2
......	......	......	......	......	......	......	......	......	......	......	......
4.6	145	433	1.08	8	25.8	14	45.2	19	61.3	12	38.7
4.2	117	392	1.80	2	22.2	2	22.2	6	66.7	3	33.3
8.0	261	372	.89	1	100.0	1	100.0	1	100.0	......	......
7.0	144	398	1.09	......	......	1	100.0	1	100.0	......	......
6.9	108	587	1.64	5	25.0	10	50.0	14	70.0	6	30.0
7.6	117	822	2.08	14	12.0	34	29.1	65	55.6	52	44.4
6.8	119	702	1.97	30	16.8	62	34.6	106	59.2	73	40.8

14 and 15 years of age at work. Of these, 8, or 16 per cent, were children of widows, 1 was the child of a deserted mother, 2 were children of incapacitated fathers, 2 had both father and mother at work, and 37, or 74 per cent, were children with fathers but not mothers at work. None of these children was reported unable to read and write. The 50 children represented 49 families, showing that in only one family was there more than one child 14 or 15 years of age at work, this family being in the class having fathers but not mothers at work. The average size of the 49 families was 6.4, varying from 4.6 in the families of widows to 6.9 in the families with fathers but not mothers at work. The average earnings per family of children under 16 were $130, and the average family income, excluding earnings of children under 16, was $864, the average per capita weekly income, excluding the earnings of children under 16, being $2.51. Two of the families had a per capita weekly income of less than $1, 9 of less than $1.50, and 16, or 32.7 per cent of all families, had a per capita weekly income of less than $2. The sections of the table relating to the various other States may be read in like manner.

TABLE XIX.—CHILDREN 14 AND 15 YEARS OF AGE AT WORK: ILLIT WIDOWS, DESERTED MOTHERS, IDLE FATHERS, FATHERS AT

Condition as to parents.	Children 14 and 15 at work.				
	Number.	Per cent of total.	Unable to read and write.		Families having such children.
			Number.	Per cent.	
NEW YORK.					
Orphans					
Children of widows	8	16.0			8
Children of deserted mothers	1	2.0			1
Children of incapacitated fathers	2	4.0			2
Children of idle fathers					
Children with both parents at work	2	4.0			2
Children with fathers but not mothers at work	37	74.0			36
Total	50	100.0			49
NEW JERSEY.					
Orphans	1	0.7			1
Children of widows	10	7.3	1	10.0	9
Children of deserted mothers	4	2.9	1	25.0	4
Children of incapacitated fathers	4	2.9			4
Children of idle fathers					
Children with both parents at work	8	5.9			8
Children with fathers but not mothers at work	110	80.3	5	4.5	101
Total	137	100.0	7	5.1	127
PENNSYLVANIA.					
Orphans					
Children of widows	101	13.5	(a)		91
Children of deserted mothers	21	2.8	(b)		19
Children of incapacitated fathers	10	1.3			10
Children of idle fathers	10	1.3	(c)		9
Children with both parents at work	26	3.5	(b)		25
Children with fathers but not mothers at work	582	77.6	[d] 5	.9	530
Total	750	100.0	[e] 5	.7	684
OHIO.					
Orphans					
Children of widows	27	14.8			27
Children of deserted mothers	10	5.5	1	10.0	9
Children of incapacitated fathers	8	4.4			8
Children of idle fathers	1	.6			1
Children with both parents at work	10	5.5			9
Children with fathers but not mothers at work	126	69.2	[b] 3	[b] 2.4	120
Total	182	100.0	[b] 4	[b] 2.2	174
INDIANA.					
Orphans					
Children of widows	14	12.2			13
Children of deserted mothers	5	4.4			5
Children of incapacitated fathers	2	1.8			2
Children of idle fathers	2	1.8			2
Children with both parents at work	8	7.0			7
Children with fathers but not mothers at work	83	72.8			80
Total	114	100.0			109
ILLINOIS.					
Orphans					
Children of widows	13	11.4			13
Children of deserted mothers	4	3.5			3
Children of incapacitated fathers	1	.9			1
Children of idle fathers	1	.9			1
Children with both parents at work	3	2.6	1	33.3	3
Children with fathers but not mothers at work	92	80.7			87
Total	114	100.0	1	.9	108

[a] Not including 6 not reported. [b] Not including 1 not reported. [c] Not including 2 not reported.

ERACY OF CHILDREN AND ECONOMIC CONDITION OF FAMILIES OF WORK, ETC., FOR EACH STATE AND FOR ALL STATES COMBINED.

Families having children 14 and 15 at work.											
Average size of family.	Average annual income per family.		Average per capita weekly income, excluding earnings of children under 16 years.	Having per capita weekly income (excluding earnings of children under 16 years) of—							
				Less than $1.		Less than $1.50.		Less than $2.		$2 and over.	
	Earnings of children under 16 years.	Excluding earnings of children under 16 years.		Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
4.6	$115	$758	$3.14	......	......	1	12.5	2	25.0	6	75.0
6.0	160	980	3.14	......	......	......	......	......	......	1	100.0
5.0	209	446	1.71	1	50.0	1	50.0	1	50.0	1	50.0
5.5	105	443	1.55	......	......	1	50.0	2	100.0	......	......
6.9	129	932	2.48	1	2.8	6	16.7	11	30.6	25	69.4
6.4	130	864	2.51	2	4.1	9	18.4	16	32.7	33	67.3
2.0	144	110	1.06	......	......	1	100.0	1	100.0	......	......
5.2	206	592	2.18	2	22.2	3	33.3	4	44.4	5	55.6
5.0	146	378	1.45	2	50.0	2	50.0	2	50.0	2	50.0
4.3	184	423	1.91	......	......	2	50.0	2	50.0	2	50.0
5.8	137	768	2.57	1	12.5	3	37.5	3	37.5	5	62.5
6.6	174	934	2.92	4	4.0	19	18.8	31	30.7	70	69.3
6.3	173	851	2.63	9	7.1	30	23.6	43	33.9	84	66.1
5.5	183	481	1.68	27	29.7	45	49.2	61	67.0	30	33.0
5.5	187	495	1.72	6	31.6	9	47.4	14	73.7	5	26.3
6.2	116	541	1.68	4	40.0	5	50.0	7	70.0	3	30.0
7.7	233	589	1.48	4	44.4	4	44.4	6	66.7	3	33.3
7.1	151	519	1.41	5	20.0	14	56.0	20	80.0	5	20.0
7.1	158	763	2.07	74	14.0	180	34.0	277	52.3	253	47.7
6.8	162	703	1.98	120	17.5	257	37.6	385	56.3	299	43.7
5.1	156	589	2.20	5	18.5	8	29.6	14	51.9	13	48.1
4.7	178	311	1.28	3	33.3	4	44.4	6	66.7	3	33.3
6.4	125	573	1.73	3	37.5	4	50.0	5	62.5	3	37.5
12.0	218	320	.51	1	100.0	1	100.0	1	100.0	......	......
5.9	169	614	2.01	2	22.2	3	33.3	4	44.4	5	55.6
6.5	166	889	2.64	8	6.7	23	19.2	38	31.7	82	68.3
6.2	164	780	2.43	22	12.6	43	24.7	68	39.1	106	60.9
4.5	196	593	2.51	1	7.7	4	30.8	6	46.2	7	53.8
4.8	150	363	1.45	3	60.0	3	60.0	3	60.0	2	40.0
5.0	157	965	3.71	......	......	......	......	......	......	2	100.0
7.5	50	820	2.10	1	50.0	1	50.0	1	50.0	1	50.0
7.1	145	700	1.88	......	......	2	28.6	4	57.1	3	42.9
6.4	154	855	2.57	5	6.3	20	25.0	31	38.7	49	61.3
6.1	157	792	2.48	10	9.2	30	27.5	45	41.3	64	58.7
5.7	155	925	3.13	4	30.8	4	30.8	5	38.5	8	61.5
4.3	195	669	2.97	......	......	......	......	......	......	3	100.0
6.0	23	408	1.31	......	......	1	100.0	1	100.0	......	......
7.0	84	335	.92	1	100.0	1	100.0	1	100.0	......	......
6.3	66	976	2.96	......	......	......	......	1	33.3	2	66.7
6.7	151	923	2.65	1	1.1	9	10.3	26	29.9	61	70.1
6.5	149	907	2.68	6	5.6	15	13.9	34	31.5	74	68.5

[d] Not including 29 not reported.

[e] Not including 39 not reported,

TABLE XIX.—CHILDREN 14 AND 15 YEARS OF AGE AT WORK: ILLIT WIDOWS, DESERTED MOTHERS, IDLE FATHERS, FATHERS AT WORK,

Condition as to parents.	Children 14 and 15 at work.				
	Number.	Per cent of total.	Unable to read and write.		Families having such children.
			Number.	Per cent.	
WISCONSIN.					
Orphans					
Children of widows	2	4.3			2
Children of deserted mothers					
Children of incapacitated fathers					
Children of idle fathers	1	2.2			1
Children with both parents at work	1	2.2			1
Children with fathers but not mothers at work	42	91.3			39
Total	46	100.0			43
MISSOURI.					
Orphans					
Children of widows	4	28.6			4
Children of deserted mothers	2	14.2			2
Children of incapacitated fathers					
Children of idle fathers					
Children with both parents at work	4	28.6			4
Children with fathers but not mothers at work	4	28.6	1	25.0	4
Total	14	100.0	1	7.1	14
WEST VIRGINIA.					
Orphans					
Children of widows	38	17.3	2	5.3	34
Children of deserted mothers	15	6.8	1	6.7	13
Children of incapacitated fathers	5	2.3			5
Children of idle fathers	3	1.4	(a)		2
Children with both parents at work	6	2.7			6
Children with fathers but not mothers at work	153	69.5	9	5.9	131
Total	220	100.0	[a]12	5.5	191
MARYLAND.					
Orphans					
Children of widows	3	9.7			3
Children of deserted mothers	1	3.2			1
Children of incapacitated fathers	1	3.2			1
Children of idle fathers					
Children with both parents at work	3	9.7	1	33.3	3
Children with fathers but not mothers at work	23	74.2			22
Total	31	100.0	1	3.2	30
VIRGINIA.					
Orphans					
Children of widows	4	18.2	3	75.0	4
Children of deserted mothers	3	13.6			2
Children of incapacitated fathers					
Children of idle fathers					
Children with both parents at work	5	22.7	1	20.0	4
Children with fathers but not mothers at work	10	45.5	2	20.0	9
Total	22	100.0	6	27.3	19
TENNESSEE.					
Orphans					
Children of widows	2	22.2			2
Children of deserted mothers					
Children of incapacitated fathers					
Children of idle fathers					
Children with both parents at work					
Children with fathers but not mothers at work	7	77.8	1	14.3	6
Total	9	100.0	1	11.1	8

[a] Not including 1 not reported.

ERACY OF CHILDREN AND ECONOMIC CONDITION OF FAMILIES OF ETC., FOR EACH STATE AND FOR ALL STATES COMBINED—Continued.

Families having children 14 and 15 at work.											
Average size of family.	Average annual income per family.		Average per capita weekly income, excluding earnings of children under 16 years.	Having per capita weekly income (excluding earnings of children under 16 years) of—							
				Less than $1.		Less than $1.50.		Less than $2.		$2 and over.	
	Earnings of children under 16 years.	Excluding earnings of children under 16 years.		Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
......	......	......	......	......	......	......	......	......	......	......	......
5.0	$207	$618	$2.38	......	......	......	......	1	50.0	1	50.0
......	......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......	......
11.0	96	1,497	2.62	......	......	......	......	......	......	1	100.0
9.0	144	1,430	3.06	......	......	......	......	......	......	1	100.0
7.9	174	816	1.98	7	17.9	13	33.3	19	48.7	20	51.3
7.9	173	837	2.04	7	16.3	13	30.2	20	46.5	23	53.5
......	......	......	......	......	......	......	......	......	......	......	......
4.5	288	273	1.17	2	50.0	2	50.0	3	75.0	1	25.0
4.5	276	397	1.69	1	50.0	1	50.0	1	50.0	1	50.0
......	......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......	......
4.8	244	534	2.16	......	......	......	......	1	25.0	3	75.0
5.5	114	487	1.70	......	......	......	......	4	100.0	......	......
4.9	224	426	1.69	3	21.4	3	21.4	9	64.3	5	35.7
......	......	......	......	......	......	......	......	......	......	......	......
4.9	226	552	2.15	8	23.5	10	29.4	20	58.8	14	41.2
4.2	221	311	1.44	5	38.5	10	76.9	10	76.9	3	23.1
6.8	111	960	2.71	1	20.0	1	20.0	2	40.0	3	60.0
10.0	318	1,124	2.16	......	......	1	50.0	1	50.0	1	50.0
6.3	204	581	1.76	......	......	2	33.3	3	50.0	3	50.0
7.1	214	901	2.44	10	7.6	33	25.2	54	41.2	77	58.8
6.5	215	793	2.34	24	12.6	57	29.8	90	47.1	101	52.9
......	......	......	......	......	......	......	......	......	......	......	......
4.0	106	284	1.37	......	......	3	100.0	3	100.0	......	......
3.0	160	283	1.81	......	......	......	......	1	100.0	......	......
8.0	98	590	1.42	......	......	1	100.0	1	100.0	......	......
......	......	......	......	......	......	......	......	......	......	......	......
7.0	171	532	1.46	1	33.3	1	33.3	3	100.0	......	......
7.1	163	742	2.01	1	4.5	8	36.4	13	59.1	9	40.9
6.7	156	655	1.89	2	6.7	13	43.3	21	70.0	9	30.0
......	......	......	......	......	......	......	......	......	......	......	......
6.8	161	469	1.34	1	25.0	3	75.0	3	75.0	1	25.0
5.5	300	158	.55	2	100.0	2	100.0	2	100.0	......	......
......	......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......	......
7.3	173	853	2.26	......	......	1	25.0	2	50.0	2	50.0
8.0	169	902	2.17	1	11.1	4	44.4	4	44.4	5	55.6
7.3	182	722	1.90	4	21.1	10	52.6	11	57.9	8	42.1
......	......	......	......	......	......	......	......	......	......	......	......
6.0	240	471	1.51	......	......	......	......	2	100.0	......	......
......	......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......	......
7.5	332	1,077	2.76	......	......	......	......	......	......	6	100.0
7.1	309	925	2.50	......	......	......	......	2	25.0	6	75.0

TABLE XIX.—CHILDREN 14 AND 15 YEARS OF AGE AT WORK: ILLIT WIDOWS, DESERTED MOTHERS, IDLE FATHERS, FATHERS AT WORK,

Condition as to parents.	Children 14 and 15 at work.				
	Number.	Per cent of total.	Unable to read and write.		Families having such children.
			Number.	Per cent.	
SOUTH CAROLINA.					
Orphans					
Children of widows	1	33.3	1	100.0	1
Children of deserted mothers					
Children of incapacitated fathers					
Children of idle fathers					
Children with both parents at work	1	33.3	1	100.0	1
Children with fathers but not mothers at work	1	33.4			1
Total	3	100.0	2	66.7	3
GEORGIA.					
Orphans					
Children of widows	1	25.0			1
Children of deserted mothers					
Children of incapacitated fathers					
Children of idle fathers					
Children with both parents at work	1	25.0			1
Children with fathers but not mothers at work	2	50.0			1
Total	4	100.0			3
SOUTHERN STATES.					
Orphans					
Children of widows	11	15.9	4	36.4	11
Children of deserted mothers	4	5.8			3
Children of incapacitated fathers	1	1.5			1
Children of idle fathers					
Children with both parents at work	10	14.5	3	30.0	9
Children with fathers but not mothers at work	43	62.3	3	7.0	39
Total	69	100.0	10	14.5	63
OTHER THAN SOUTHERN STATES.					
Orphans	1	.1			1
Children of widows	217	13.3	[a] 3	[a] 1.4	201
Children of deserted mothers	62	3.8	[b] 3	[b] 4.8	56
Children of incapacitated fathers	32	2.0			32
Children of idle fathers	18	1.1	(c)	(c)	16
Children with both parents at work	68	4.2	[b] 1	[b] 1.5	65
Children with fathers but not mothers at work	1,229	75.5	[d] 23	[d] 1.9	1,128
Total	1,627	100.0	[e] 30	[e] 1.8	1,499
ALL STATES.					
Orphans	1	.1			1
Children of widows	228	13.4	[a] 7	[a] 3.2	212
Children of deserted mothers	66	3.9	[b] 3	[b] 4.6	59
Children of incapacitated fathers	33	1.9			33
Children of idle fathers	18	1.1	(c)	(c)	16
Children with both parents at work	78	4.6	[b] 4	[b] 5.2	74
Children with fathers but not mothers at work	1,272	75.0	[d] 26	[d] 2.1	1,167
Total	1,696	100.0	[e] 40	[e] 2.4	1,562

[a] Not including 6 not reported. [b] Not including 1 not reported. [c] Not including 3 not reported.

ERACY OF CHILDREN AND ECONOMIC CONDITION OF FAMILIES OF ETC., FOR EACH STATE AND FOR ALL STATES COMBINED—Concluded.

Families having children 14 and 15 at work.											
Average size of family.	Average annual income per family.		Average per capita weekly income, excluding earnings of children under 16 years.	Having per capita weekly income (excluding earnings of children under 16 years) of—							
	Earnings of children under 16 years.	Excluding earnings of children under 16 years.		Less than $1.		Less than $1.50.		Less than $2.		$2 and over.	
				Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
4.0	$161	$313	$1.50	......	......	......	......	1	100.0	......	......
......	......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......	......
8.0	306	305	.73	1	100.0	1	100.0	1	100.0	......	......
9.0	392	488	1.04	......	......	1	100.0	1	100.0	......	......
7.0	286	369	1.01	1	33.3	2	66.7	3	100.0	......	......
4.0	216	282	1.36	......	......	1	100.0	1	100.0	......	......
......	......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......	......
4.0	11	398	1.91	......	......	......	......	1	100.0	......	......
8.0	371	819	1.97	......	......	......	......	1	100.0	......	......
5.3	199	500	1.80	......	......	1	33.3	3	100.0	......	......
5.4	165	388	1.39	1	9.1	7	63.6	10	90.9	1	9.1
4.7	253	200	.82	2	66.7	2	66.7	3	100.0	......	......
8.0	98	590	1.42	......	......	1	100.0	1	100.0	......	......
......	......	......	......	......	......	......	......	......	......	......	......
6.9	169	635	1.77	2	22.2	3	33.3	7	77.8	2	22.2
7.4	202	826	2.13	2	5.1	13	33.3	19	48.7	20	51.3
6.9	191	689	1.93	7	11.1	26	41.3	40	63.5	23	36.5
2.0	144	110	1.06	......	......	1	100.0	1	100.0	......	......
5.2	186	557	2.05	49	24.4	77	38.3	116	57.7	85	42.3
4.9	190	417	1.64	20	35.7	29	51.8	36	64.3	20	35.7
6.0	131	616	1.99	9	28.1	14	43.8	18	56.2	14	43.8
8.4	202	709	1.62	7	43.8	8	50.0	10	62.5	6	37.5
6.5	156	622	1.84	8	12.3	25	38.5	38	58.5	27	41.5
6.9	165	833	2.31	110	9.8	303	26.9	491	43.5	637	56.5
6.6	168	765	2.23	203	13.5	457	30.5	710	47.4	789	52.6
2.0	144	110	1.06	......	......	1	100.0	1	100.0	......	......
5.2	185	548	2.02	50	23.6	84	39.6	126	59.4	86	40.6
4.9	193	406	1.60	22	37.3	31	52.5	39	66.1	20	33.9
6.1	130	615	1.95	9	27.3	15	45.5	19	57.6	14	42.4
8.4	202	709	1.62	7	43.8	8	50.0	10	62.5	6	37.5
6.5	158	624	1.83	10	13.5	28	37.8	45	60.8	29	39.2
6.9	166	833	2.32	112	9.6	316	27.1	510	43.7	657	56.3
6.6	169	762	2.22	210	13.4	483	30.9	750	48.0	812	52.0

[d] Not including 30 not reported.

[e] Not including 41 not reported.

TABLE XX.—SINGLE WOMEN AT WORK AND ECONOMIC CONDITION OF THEIR FAMILIES.

This table shows for each State, except South Carolina, in which no single women were found at work in the families visited, and for all States combined, and also by groups, as in the preceding tables, the families having single women 16 years of age and over at work, and the economic condition of the families, with the women grouped according to age. The selection of the representative families and the securing of the detailed data upon which this table is based are fully explained in connection with Table XXVIII. The facts in regard to income being secured from members of the family in the home are necessarily only approximate. The probability of error in these figures is discussed in detail on page 508.

Reference to that part of the table relating to New York shows that the families from which reports were obtained had 62 single women 16 years of age and over at work. Eight, or 12.9 per cent, of these were 16 years of age, 12, or 19.4 per cent, were 17 years of age, the same number were found at both 18 and 19 years of age, and for the others the number and per cent are shown for each year up to 24, those of 25 to 29 as a group, and those 30 years of age and over

TABLE XX.—SINGLE WOMEN 16 YEARS OF AGE AND OVER AT WORK:
WOMEN, FOR EACH STATE AND

[In the details of this table each family appears as many times as it has single women of different ages
fied ages are not comparable with the totals and averages

Single women 16 years and over at work.						Families of single women 16 years and over at work.		
Age.	Number.	Per cent of total.	Average years since beginning work.	Average days worked past year.	Average earnings past year.	Number.	Having children under 16 years.	Average size of families.
NEW YORK.								
16 years	8	12.9	1.1	214	$176	8	8	6.4
17 years	12	19.4	1.8	233	186	12	10	6.5
18 years	12	19.4	2.3	242	223	12	11	6.9
19 years	12	19.4	2.6	228	195	12	11	6.9
20 years	4	6.4	3.8	243	243	4	3	6.0
21 years	5	8.1	4.8	258	208	5	5	6.8
22 years	1	1.6	.5	156	91	1	1	9.0
23 years	3	4.8	8.3	213	262	3	3	6.0
24 years	1	1.6	9.0	216	180	1	1	8.0
25 to 29 years	3	4.8	10.7	196	250	3	2	5.3
30 years and over	1	1.6	18.0	307	256	1	1	7.0
Total	62	100.0	3.4	231	205	42	37	6.4
NEW JERSEY.								
16 years	8	9.8	2.5	192	146	8	7	6.9
17 years	17	20.7	3.0	228	201	17	15	7.5
18 years	16	19.5	3.2	215	199	16	13	6.9
19 years	5	6.1	2.2	238	217	5	3	5.6
20 years	9	11.0	4.1	244	269	9	8	6.4
21 years	6	7.3	4.8	193	167	6	5	6.5
22 years	6	7.3	5.1	265	272	6	3	6.3

as a final group. The average years since beginning work for the 62 women were given as 3.4. For the women of 16 years the average was 1.1, and for those of 17 years 1.8 years. The average days worked during the past year for the entire number of women are reported as 231, with average earnings of $205. These 62 women, the table shows, represented 42 families, of which the average size was 6.4 persons. Thirty-three of the families had an income from the father, 4 from the mother, and 21 from children under 16. The average family income for the year was $1,125, equivalent to a per capita weekly income of $3.39. None of the families, it appears from the table, had a per capita weekly income of less than $1, only one had an income of less than $1.50, and five, or 11.9 per cent of the entire number, had an income of less than $2. It should be noted that in the details of this table each family appears as many times as it has single women of different ages at work. On account of this duplication the numbers and averages for families having women of specified ages are not comparable with the totals and averages for the States where each family is counted only once. The sections of the table relating to the other States may be read in like manner.

ECONOMIC CONDITION OF THE WOMEN AND THE FAMILIES, BY AGE OF
FOR ALL STATES COMBINED.

at work. On account of this duplication the number and averages for families having women of speci-
for States, where each family is counted but once.]

Families of single women 16 years and over at work.												
Having income from—			Average income.		Having per capita weekly income of—							
					Less than $1.		Less than $1.50.		Less than $2.		$2 and over.	
Father.	Mother.	Children under 16 years.	Annual per family.	Weekly per capita.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
7	1	3	$1,019	$3.081			1	12.5	2	25.0	6	75.0
9		7	1,046	3.09					1	8.3	11	91.7
10	1	6	1,236	3.44					2	16.7	10	83.3
10	1	5	1,163	3.23					2	16.7	10	83.3
2		3	1,332	4.27							4	100.0
4		2	1,491	4.22							5	100.0
1			690	1.47			1	100.0	1	100.0		
1		3	1,298	4.16							3	100.0
1			1,248	3.00							1	100.0
1	1	1	1,468	5.29							3	100.0
1		1	1,425	3.91							1	100.0
33	4	21	1,125	3.39			1	2.4	5	11.9	37	88.1
7		5	1,089	3.05	1	12.5	1	12.5	1	12.5	7	87.5
17	1	13	1,252	3.20					2	11.8	15	88.2
12	1	11	1,130	3.16					1	6.3	15	93.7
5	1	1	1,096	3.76					1	20.0	4	80.0
8		6	1,471	4.39							9	100.0
5		4	869	2.57	1	16.7	1	16.7	2	33.3	4	66.7
4		3	1,323	4.02							6	100.0

TABLE XX.—SINGLE WOMEN 16 YEARS OF AGE AND OVER AT WORK: WOMEN, FOR EACH STATE AND FOR

	Single women 16 years and over at work.					Families of single women 16 years and over at work.		
Age.	Number.	Per cent of total.	Average years since beginning work.	Average days worked past year.	Average earnings past year.	Number.	Having children under 16 years.	Average size of families.
NEW JERSEY—con.								
23 years	2	2.4	6.5	265	$241	2	2	7.0
24 years	2	2.4	8.5	239	208	2	1	6.5
25 to 29 years	8	9.8	10.1	260	275	7	4	5.6
30 years and over	3	3.7	14.3	226	291	2	1	6.0
Total	82	100.0	4.7	229	218	63	50	6.7
PENNSYLVANIA.								
16 years	141	28.3	[a] 1.8	218	152	137	122	7.1
17 years	99	19.9	[b] 2.7	235	180	97	86	6.9
18 years	77	15.5	[a] 3.3	[c] 247	208	77	73	7.1
19 years	40	8.0	[d] 3.8	[c] 227	197	40	33	6.7
20 years	43	8.7	[e] 4.9	245	234	43	38	6.7
21 years	27	5.4	[f] 6.1	254	245	27	20	6.5
22 years	20	4.0	[g] 5.8	254	219	20	15	6.7
23 years	20	4.0	[h] 7.5	242	235	20	13	7.0
24 years	13	2.6	[g] 8.1	266	281	13	8	5.4
25 to 29 years	11	2.2	[i] 9.9	278	364	11	3	5.1
30 years and over	7	1.4	[i] 18.8	221	241	7	2	4.4
Total	498	100.0	[j] 3.7	[i] 236	197	382	321	6.7
OHIO.								
16 years	35	20.8	1.5	238	177	35	31	6.1
17 years	21	12.5	2.2	238	212	21	18	7.5
18 years	25	14.9	3.0	246	239	25	22	6.2
19 years	11	6.5	2.6	248	204	11	7	6.2
20 years	18	10.7	3.9	255	263	18	10	5.9
21 years	10	6.0	4.5	199	200	10	5	5.8
22 years	10	6.0	4.3	212	208	10	6	6.4
23 years	8	4.7	6.8	248	229	8	4	6.4
24 years	6	3.6	6.1	212	219	6	3	6.8
25 to 29 years	14	8.3	6.5	213	190	12	2	5.2
30 years and over	10	6.0	[c] 17.6	256	278	7	3	4.9
Total	168	100.0	[c] 4.5	236	216	109	75	6.0
INDIANA.								
16 years	6	12.3	1.4	170	148	6	6	6.5
17 years	16	32.6	1.7	196	154	16	14	6.4
18 years	10	20.4	2.9	216	206	10	7	5.5
19 years	4	8.2	4.3	178	160	4	3	5.5
20 years	6	12.3	4.4	232	194	6	6	7.8
21 years	1	2.0	5.0	120	90	1	....	3.0
22 years	2	4.1	7.0	267	203	2	1	4.0
23 years	....	....	....	....	....	....	....	....
24 years	3	6.1	9.3	215	246	3	1	3.3
25 to 29 years	1	2.0	10.0	307	364	1	1	9.0
30 years and over	....	....	....	....	....	....	....	....
Total	49	100.0	3.4	205	180	36	30	6.2
ILLINOIS.								
16 years	31	27.0	1.4	199	160	30	26	6.9
17 years	28	24.4	2.3	230	188	28	26	7.1
18 years	22	19.1	2.8	232	197	22	17	6.3
19 years	8	7.0	4.4	225	210	8	7	7.8
20 years	5	4.4	2.3	186	166	5	4	6.2
21 years	6	5.2	4.6	251	281	6	4	7.0

[a] Not including 13 not reported.
[b] Not including 22 not reported.
[c] Not including 1 not reported.
[d] Not including 8 not reported.
[e] Not including 10 not reported.
[f] Not including 5 not reported.

ECONOMIC CONDITION OF THE WOMEN AND THE FAMILIES, BY AGE OF ALL STATES COMBINED—Continued.

Families of single women 16 years and over at work.												
Having income from—			Average income.		Having per capita weekly income of—							
					Less than $1.		Less than $1.50.		Less than $2.		$2 and over.	
Father.	Mother.	Children under 16 years.	Annual per family.	Weekly per capita.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
2	......	1	$1,524	$4.19	......	......	......	......	......	......	2	100.0
1	......	......	1,040	3.08	......	......	......	......	......	......	2	100.0
4	2	4	1,116	3.85	......	......	......	......	......	......	7	100.0
1	......	1	1,599	5.13	......	......	......	......	......	......	2	100.0
53	5	38	1,148	3.31	2	3.2	2	3.2	7	11.1	56	88.9
114	10	72	885	2.41	9	6.6	29	21.2	59	43.1	78	56.9
66	11	56	947	2.62	3	3.1	8	8.2	25	25.8	72	74.2
56	10	41	1,055	2.85	1	1.3	4	5.2	13	16.9	64	83.1
28	3	27	1,013	2.91	1	2.5	3	7.5	9	22.5	31	77.5
24	1	25	1,044	3.00	......	......	4	9.3	9	20.9	34	79.1
19	1	9	1,135	3.35	......	......	1	3.7	3	11.1	24	88.9
13	......	9	1,072	3.08	......	......	1	5.0	5	25.0	15	75.0
11	1	5	1,123	3.11	......	......	......	......	4	20.0	16	80.0
2	2	3	1,100	3.93	......	......	......	......	1	7.7	12	92.3
4	......	1	1,138	4.30	......	......	......	......	1	9.1	10	90.9
4	1	2	1,101	4.78	......	......	1	14.2	1	14.3	6	85.7
274	33	201	950	2.73	14	3.7	43	11.3	109	28.5	273	71.5
22	5	17	1,042	3.28	......	......	2	5.7	5	14.3	30	85.7
16	2	10	1,405	3.59	......	......	1	4.8	2	9.5	19	90.5
17	1	12	1,219	3.76	......	......	1	4.0	2	8.0	23	92.0
9	1	4	1,099	3.42	......	......	......	......	1	9.1	10	90.9
10	1	5	1,215	3.97	......	......	......	......	1	5.6	17	94.4
6	1	2	1,065	3.53	......	......	1	10.0	3	30.0	7	70.0
6	......	3	1,326	3.98	......	......	......	......	2	20.0	8	80.0
4	......	3	1,182	3.56	......	......	......	......	......	......	8	100.0
4	......	1	1,270	3.57	......	......	1	16.7	1	16.7	5	83.3
5	......	1	1,103	4.11	......	......	......	......	1	8.3	11	91.7
......	......	1	818	3.24	......	......	......	......	......	......	7	100.0
68	10	40	1,123	3.59	......	......	5	4.6	14	12.8	95	87.2
4	......	2	1,052	3.11	......	......	......	......	1	16.7	5	83.3
13	1	10	853	2.57	......	......	2	12.5	4	25.0	12	75.0
8	......	5	1,193	4.17	......	......	1	10.0	1	10.0	9	90.0
2	......	3	959	3.35	......	......	......	......	......	......	4	100.0
4	1	4	1,189	2.92	......	......	......	......	......	......	6	100.0
......	......	......	180	1.15	......	......	1	100.0	1	100.0	......	......
......	......	......	498	2.39	......	......	......	......	1	50.0	1	50.0
......	......	......	......	......	......	......	......	......	......	......	......	......
1	......	1	620	3.58	......	......	......	......	......	......	3	100.0
1	......	1	1,646	3.52	......	......	......	......	......	......	1	100.0
......	......	......	......	......	......	......	......	......	......	......	......	......
25	2	22	1,061	3.29	......	......	3	8.3	6	16.7	30	83.3
25	2	8	930	2.59	1	3.3	1	3.3	9	30.0	21	70.0
21	5	11	1,163	3.15	......	......	1	3.6	5	17.9	23	82.1
15	4	9	895	2.74	1	4.5	1	4.5	8	36.4	14	63.6
5	1	3	1,102	2.82	......	......	1	12.5	2	25.0	6	75.0
4	......	1	1,376	4.27	......	......	......	......	1	20.0	4	80.0
1	1	2	1,424	3.91	......	......	......	......	1	16.7	5	83.3

[g] Not including 3 not reported.

[h] Not including 7 not reported.

[i] Not including 2 not reported.

[j] Not including 88 not reported.

TABLE XX.—SINGLE WOMEN 16 YEARS OF AGE AND OVER AT WORK: WOMEN, FOR EACH STATE AND FOR

Single women 16 years and over at work.						Families of single women 16 years and over at work.		
Age.	Number.	Per cent of total.	Average years since beginning work.	Average days worked past year.	Average earnings past year.	Number.	Having children under 16 years.	Average size of families.
ILLINOIS—concluded.								
22 years	2	1.7	6.5	303	$198	2	1	4.0
23 years	3	2.6	6.7	286	313	3	2	7.3
24 years	2	1.7	7.5	295	361	2	2	8.0
25 to 29 years	6	5.2	11.0	249	447	5	3	6.0
30 years and over	2	1.7	17.5	223	223	2	1	5.5
Total	115	100.0	3.4	225	208	82	65	6.5
WISCONSIN.								
16 years	4	25.0	1.1	232	216	4	4	8.3
17 years	4	25.0	a 2.7	234	183	4	4	5.5
18 years	3	18.8	3.3	280	232	3	3	8.3
19 years	1	6.2	7.0	280	280	1	1	7.0
20 years	4	25.0	5.5	262	209	4	4	6.0
21 years								
22 years								
23 years								
24 years								
25 to 29 years								
30 years and over								
Total	16	100.0	a 3.4	252	213	14	14	6.9
MISSOURI.								
16 years	1	20.0	1.5	300	251	1	1	3.0
17 years								
18 years	1	20.0	4.0	154	154	1	1	5.0
19 years								
20 years	1	20.0	5.0	60	82	1	1	5.0
21 years								
22 years	1	20.0	2.0	78	130	1	1	6.0
23 years								
24 years								
25 to 29 years	1	20 0	16.0	110	110	1	1	5.0
30 years and over								
Total	5	100.0	5.7	140	145	4	4	4.8
WEST VIRGINIA.								
16 years	38	19.6	1.9	209	193	38	32	6.0
17 years	29	15.0	2.8	217	179	29	25	6.7
18 years	26	13.4	b 3.1	247	248	26	24	6.7
19 years	22	11.3	2.9	237	239	22	19	6.5
20 years	14	7.2	3.2	a 224	234	14	12	7.2
21 years	14	7.2	3.4	214	212	14	12	6.3
22 years	11	5.7	4.4	202	204	11	8	6.9
23 years	8	4.1	b 5.8	257	255	8	5	5.9
24 years	7	3.6	4.9	210	227	7	3	5.7
25 to 29 years	7	3.6	7.4	243	312	7	4	6.1
30 years and over	18	9.3	14.8	241	280	14	4	5.4
Total	194	100.0	c 4.3	a 226	225	143	109	6.1
MARYLAND.								
16 years		26.9	2.1	195	127	7	7	7.1
17 years	3	11.5	2.7	168	106	3	3	7.7
18 years	5	19.2	3.0	238	196	5	4	6.6
19 years	2	7.7	3.5	160	123	2	2	7.5
20 years	2	7.7	6.0	274	167	2	1	5.5
21 years	2	7.7	8.5	263	283	2	2	8.0
22 years	3	11.5	8.3	226	212	3	3	9.7

[a] Not including 1 not reported.

[b] Not including 2 not reported.

ECONOMIC CONDITION OF THE WOMEN AND THE FAMILIES, BY AGE OF ALL STATES COMBINED—Continued.

Families of single women 16 years and over at work.												
Having income from—			Average income.		Having per capita weekly income of—							
					Less than $1.		Less than $1.50.		Less than $2.		$2 and over.	
Father.	Mother.	Children under 16 years.	Annual per family.	Weekly per capita.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
1	1	1	$ 726	$3.49	......	......	......	......	......	......	2	100.0
3	......	......	1,878	4.93	......	......	......	......	......	......	3	100.0
1	......	1	1,895	4.56	......	......	......	......	......	......	2	100.0
......	2	3	1,678	5.38	......	......	......	......	......	......	5	100.0
1	......	1	1,303	4.56	......	......	......	......	......	......	2	100.0
59	13	30	1,031	3.07	1	1.2	3	3.7	22	26.8	60	73.2
4	......	4	783	1.83	1	25.0	1	25.0	2	50.0	2	50.0
4	......	4	1,041	3.64	......	......	......	......	......	......	4	100.0
2	2	3	1,325	3.06	......	......	......	......	......	......	3	100.0
1	......	1	1,289	3.54	......	......	......	......	......	......	1	100.0
3	1	4	948	3.04	......	......	......	......	......	......	4	100.0
......	......	......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......	......	......
12	2	14	1,002	2.78	1	7.1	1	7.1	2	14.3	12	85.7
......	......	1	509	3.26	......	......	......	......	......	......	1	100.0
......	......	......	......	......	......	......	......	......	......	......	......	......
......	1	......	912	3.51	......	......	......	......	......	......	1	100.0
......	......	......	......	......	......	......	......	......	......	......	......	......
......	1	......	912	3.51	......	......	......	......	......	......	1	100.0
......	......	......	......	......	......	......	......	......	......	......	......	......
......	1	1	1,006	3.22	......	......	......	......	......	......	1	100.0
......	......	......	......	......	......	......	......	......	......	......	......	......
......	......	......	......	......	......	......	......	......	......	......	......	......
1	1	......	781	3.00	......	......	......	......	......	......	1	100.0
......	......	......	......	......	......	......	......	......	......	......	......	......
1	3	2	802	3.25	......	......	......	......	......	......	4	100.0
22	6	20	956	3.06	......	......	3	7.9	7	18.4	31	81.6
22	6	16	1,163	3.33	1	3.4	3	10.3	4	13.8	25	86.2
17	4	16	1,156	3.30	1	3.8	1	3.8	2	7.7	24	92.3
16	2	9	1,181	3.52	......	......	1	4.5	1	4.5	21	95.5
6	......	8	1,143	3.05	......	......	......	......	2	14.3	12	85.7
11	......	6	1,212	3.71	......	......	......	......	......	......	14	100.0
6	2	3	939	2.61	......	......	......	......	2	18.2	9	81.8
3	2	5	1,111	3.64	......	......	......	......	......	......	8	100.0
2	1	1	937	3.15	......	......	......	......	......	......	7	100.0
5	......	1	1,318	4.13	......	......	......	......	......	......	7	100.0
2	1	2	1,188	4.21	......	......	......	......	......	......	14	100.0
88	19	69	1,071	3.38	2	1.4	8	5.6	17	11.9	126	88.1
	1	7	802	2.16	......	......	2	28.6	4	57.1	3	42.9
3	1	2	853	2.14	......	......	1	33.3	1	33.3	2	66.7
4	......	2	744	2.17	......	......	......	......	1	20.0	4	80.0
2	1	2	1,009	2.59	......	......	1	50.0	1	50.0	1	50.0
2	......	1	856	2.99	......	......	......	......	......	......	2	100.0
2	......	2	1,074	2.58	......	......	......	......	......	......	2	100.0
3	......	3	1,352	2.69	......	......	......	......	1	33.3	2	66.7

[c] Not including 4 not reported.

TABLE XX.—SINGLE WOMEN 16 YEARS OF AGE AND OVER AT WORK: WOMEN, FOR EACH STATE AND FOR

Single women 16 years and over at work.						Families of single women 16 years and over at work.		
Age.	Number.	Per cent of total.	Average years since beginning work.	Average days worked past year	Average earnings past year.	Number.	Having children under 16 years.	Average size of families.
MARYLAND—concl'd.								
23 years								
24 years	1	3.9	9.0	365	$208	1	1	4.0
25 to 29 years	1	3.9	13.0	231	231	1	1	7.0
30 years and over								
Total	26	100.0	4.6	220	169	22	20	7.2
VIRGINIA.								
16 years	2	14.3	2.0	238	152	2	2	5.5
17 years	4	28.6	2.8	223	147	4	4	6.8
18 years								
19 years	1	7.1	1.5	307	162	1	1	6.0
20 years								
21 years	4	28.6	4.3	243	127	4	4	7.5
22 years								
23 years								
24 years	1	7.1	7.0	102	51	1	1	8.0
25 to 29 years								
30 years and over	2	14.3	22.5	307	109	2	2	8.0
Total	14	100.0	6.1	240	131	8	8	6.8
TENNESSEE.								
16 years	2	40.0	3.0	250	134	2	2	6.0
17 years								
18 years								
19 years	1	20.0	5.0	300	240	1	1	4.0
20 years	1	20.0	5.0	200	160	1	1	9.0
21 years								
22 years								
23 years	1	20.0	4.0	240	200	1	1	6.0
24 years								
25 to 29 years								
30 years and over								
Total	5	100.0	4.0	248	174	5	5	6.2
GEORGIA.								
16 years								
17 years								
18 years	1	100.0	.3	90	13	1	1	4
19 years								
20 years								
21 years								
22 years								
23 years								
24 years								
25 to 29 years								
30 years and over								
Total	1	100.0	.3	90	13	1	1	4
SOUTHERN STATES.								
16 years	11	23.9	2.2	213	133	11	11	6.6
17 years	7	15.2	2.8	199	129	7	7	7.2
18 years	6	13.0	2.6	213	166	6	5	6.2
19 years	4	8.7	3.4	232	162	4	4	6.3
20 years	3	6.5	5.7	249	165	3	2	6.7
21 years	6	13.0	5.7	250	179	6	6	7.7
22 years	3	6.5	8.3	226	212	3	3	9.7

ECONOMIC CONDITION OF THE WOMEN AND THE FAMILIES, BY AGE OF ALL STATES COMBINED—Continued.

Families of single women 16 years and over at work.												
Having income from—			Average income.		Having per capita weekly income of—							
					Less than $1.		Less than $1.50.		Less than $2.		$2 and over.	
Father.	Mother.	Children under 16 years.	Annual per family.	Weekly per capita.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
....	....	....	....	....	....	....	....	....	....	....	....	....
....	....	1	$849	$4.08	....	....	....	....	....	....	1	100.0
1	....	1	1,298	3.57	....	....	....	....	....	....	1	100.0
....	....	....	....	....	....	....	....	....	....	....	....	....
19	3	8	877	2.41	....	....	4	18.2	7	31.8	15	68.2
1	....	1	688	2.40	....	....	....	....	1	50.0	1	50.0
2	3	4	850	2.42	....	....	....	....	1	25.0	3	75.0
....	....	....	....	....	....	....	....	....	....	....	....	....
....	1	1	532	1.71	....	....	....	....	1	100.0	....	....
....	....	....	....	....	....	....	....	....	....	....	....	....
2	3	4	793	2.03	....	....	....	....	2	50.0	2	50.0
....	....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....	....
1	1	1	1,107	2.66	....	....	....	....	....	....	1	100.0
....	....	....	....	....	....	....	....	....	....	....	....	....
....	2	2	661	1.59	....	....	....	....	2	100.0	....	....
4	5	7	735	2.09	....	....	....	....	4	50.0	4	50.0
1	....	2	880	2.82	....	....	....	....	....	....	2	100.0
....	....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....	....
....	....	1	883	4.25	....	....	....	....	....	....	1	100.0
1	....	1	1,874	4.00	....	....	....	....	....	....	1	100.0
....	....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....	....
1	....	1	1,280	4.10	....	....	....	....	....	....	1	100.0
....	....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....	....
3	....	5	1,159	3.60	....	....	....	....	....	....	5	100.0
....	....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....	....
1	1	1	409	1.97	....	....	....	....	1	100.0	....	....
....	....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....	....
1	1	1	409	1.97	....	....	....	....	1	100.0	....	....
8	1	10	795	2.31	....	....	2	18.2	5	45.5	6	54.5
5	4	6	851	2.28	....	....	1	14.3	2	28.6	5	71.4
5	1	3	688	2.15	....	....	....	....	2	33.3	4	66.7
2	2	4	858	2.64	....	....	1	25.0	2	50.0	2	50.0
3	....	2	1,195	3.45	....	....	....	....	....	....	3	100.0
4	3	6	887	2.22	....	....	....	....	2	33.3	4	66.7
3	....	3	1,352	2,68	....	....	....	....	1	33.3	2	66.7

TABLE XX.—SINGLE WOMEN 16 YEARS OF AGE AND OVER AT WORK: WOMEN, FOR EACH STATE AND FOR

Single women 16 years and over at work.						Families of single women 16 years and over at work.		
Age.	Number.	Per cent of total.	Average years since beginning work.	Average days worked past year.	Average earnings past year.	Number.	Having children under 16 years.	Average size of families.
SOUTHERN STATES—concluded.								
23 years	1	2.2	4.0	240	$200	1	1	6.0
24 years	2	4.4	8.0	234	130	2	2	6.0
25 to 29 years	1	2.2	13.0	231	231	1	1	7.0
30 years and over	2	4.4	22.5	307	109	2	2	8.0
Total	46	100.0	4.9	227	155	36	34	6.9
OTHER THAN SOUTHERN STATES.								
16 years	272	22.9	[a] 1.7	216	164	267	237	6.8
17 years	226	19.0	[b] 2.5	229	184	224	198	6.9
18 years	192	16.1	[c] 3.1	[d] 241	216	192	171	6.7
19 years	103	8.7	[e] 3.3	[d] 231	208	103	84	6.6
20 years	104	8.7	[f] 4.2	[d] 239	234	104	86	6.6
21 years	69	5.8	[g] 4.9	231	223	69	51	6.4
22 years	53	4.5	[h] 5.0	234	214	53	36	6.5
23 years	44	3.7	[i] 7.0	248	245	44	29	6.6
24 years	34	2.9	[h] 7.1	239	253	34	19	5.8
25 to 29 years	51	4.3	[j] 8.9	242	293	47	20	5.5
30 years and over	41	3.4	[h] 16.2	241	270	33	12	5.2
Total	1,189	100.0	[k] 3.9	[h] 231	207	875	705	6.5
ALL STATES.								
16 years	283	22.9	[a] 1.7	216	163	278	248	6.8
17 years	233	18.9	[b] 2.5	228	182	231	205	6.9
18 years	198	16.0	[c] 3.1	[d] 240	214	198	176	6.7
19 years	107	8.7	[e] 3.3	[d] 231	206	107	88	6.6
20 years	107	8.7	[f] 4.2	[d] 239	232	107	88	6.6
21 years	75	6.1	[g] 5.0	233	219	75	57	6.5
22 years	56	4.5	[h] 5.2	234	214	56	39	6.7
23 years	45	3.6	[i] 6.9	248	244	45	30	6.6
24 years	36	2.9	[h] 7.2	239	246	36	21	5.8
25 to 29 years	52	4.2	[j] 9.0	242	292	48	21	5.5
30 years and over	43	3.5	[h] 16.5	244	263	35	14	5.4
Total	1,235	100.0	[k] 3.9	[h] 231	205	911	739	6.5

[a] Not including 13 not reported.
[b] Not including 23 not reported.
[c] Not including 15 not reported.
[d] Not including 1 not reported.
[e] Not including 8 not reported.
[f] Not including 10 not reported.

ECONOMIC CONDITION OF THE WOMEN AND THE FAMILIES, BY AGE OF ALL STATES COMBINED—Concluded.

Families of single women 16 years and over at work.												
Having income from—			Average income.		Having per capita weekly income of—							
Father.	Mother.	Children under 16 years.	Annual per family.	Weekly per capita.	Less than $1.		Less than $1.50.		Less than $2.		$2 and over.	
					Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
1	....	1	$1,280	$4.10	......	....	....	....	......	....	1	100.0
1	1	2	978	3.13	......	....	....	....	......	....	2	100.0
1	....	1	1,298	3.57	......	....	....	....	......	....	1	100.0
....	2	2	661	1.59	......	....	....	....	2	100.0	....	....
27	9	21	872	2.44	......	....	4	11.1	12	33.3	24	66.7
205	24	132	932	2.65	12	4.5	38	14.2	86	32.2	181	67.8
168	26	127	1,068	2.97	4	1.8	15	6.7	43	19.2	181	80.8
137	24	103	1,100	3.14	3	1.6	8	4.2	29	15.1	163	84.9
76	9	53	1,087	3.16	1	1.0	5	4.9	16	15.5	87	84.5
61	5	56	1,154	3.38	......	....	4	3.8	13	12.5	91	87.5
46	3	25	1,154	3.48	1	1.4	4	5.8	10	14.5	59	85.5
31	4	20	1,078	3.20	......	....	2	3.8	11	20.8	42	79.2
24	3	17	1,213	3.51	......	....	....	....	4	9.1	40	90.9
12	3	7	1,102	3.64	......	....	1	2.9	2	5.9	32	94.1
21	6	12	1,234	4.29	......	....	....	....	2	4.3	45	95.7
9	2	8	1,130	4.20	......	....	1	3.0	1	3.0	32	97.0
613	91	437	1,026	3.06	20	2.3	66	7.5	182	20.8	693	79.2
213	25	142	927	2.62	12	4.3	40	14.4	91	32.7	187	67.3
173	30	133	1,061	2.95	4	1.7	16	6.9	45	19.5	186	80.5
142	25	106	1,088	3.13	3	1.5	8	4.0	31	15.7	167	84.3
78	11	57	1,078	3.15	1	.9	6	5.6	18	16.8	89	83.2
64	5	58	1,155	3.36	......	....	4	3.7	13	12.1	94	87.9
50	6	31	1,133	3.35	1	1.3	4	5.3	12	16.0	63	84.0
34	4	23	1,093	3.15	......	....	2	3.6	12	21.4	44	78.6
25	3	18	1,214	3.55	......	....	....	....	4	8.9	41	91.1
13	4	9	1,095	3.62	......	....	1	2.8	2	5.6	34	94.4
22	6	13	1,235	4.29	......	....	....	....	2	4.2	46	95.8
9	4	10	1,103	3.96	......	....	1	2.9	3	8.6	32	91.4
640	100	458	1,020	3.01	20	2.2	70	7.7	194	21.3	717	78.7

[g] Not including 5 not reported.
[h] Not including 3 not reported.
[i] Not including 9 not reported.
[j] Not including 2 not reported.
[k] Not including 94 not reported.

TABLE XXI.—MARRIED WOMEN AT WORK AND ECONOMIC CONDITION OF THEIR FAMILIES.

This table shows for representative married women at work the facts in regard to age, years married, number having children of various ages, and economic condition of the families, the women being grouped according as they are widows, deserted or divorced wives, wives of incapacitated husbands, of idle husbands, or wives with husbands at work. The facts for each of the States included in the investigation are presented separately, except that four States, Maryland, Virginia, South Carolina, and Georgia, are combined on account of the small number of married women at work found in these States. No such women were found in the establishments investigated in Tennessee. The facts are also shown for all States other than those just mentioned and for all States combined. The facts upon which this table is based are presented in detail for each woman and her family in Table XXIX, in connection with which full explanation is given in regard to the selection of the families and the method followed in securing the facts from the family. It should be said here, however, that the figures in regard to income, being secured in the home from the members of the family, are necessarily only

TABLE XXI.—MARRIED WOMEN AT WORK: ECONOMIC CONDITION OF WIVES WITH HUSBANDS AT WORK, ETC., FOR EACH

Condition as to husband.	Married women at work.								
	Number.	Per cent of total.	Average age.	Average years married.	Number having children of ages—				
					2 years and under.	3 to 5 years.	6 to 9 years.	10 to 13 years.	14 and 15 years.
NEW YORK.									
Widows	3	42.9	50.0	32.3	......	......	1	......	1
Deserted or divorced wives	......	......	......	......	......	......	......	......	......
Wives of incapacitated husbands	1	14.3	45.0	28.0	......	......	......	......	1
Wives of idle husbands	......	......	......	......	......	......	......	......	......
Wives with husbands at work	3	42.8	41.7	17.3	......	......	1	3	3
Total	7	100.0	45.7	25.3	......	......	2	3	5
NEW JERSEY.									
Widows	6	31.6	45.0	21.3	......	......	3	4	5
Deserted and divorced wives	2	10.5	44.0	24.5	......	......	1	2	1
Wives of incapacitated husbands	1	5.3	54.0	34.0	......	......	......	......	1
Wives of idle husbands	......	......	......	......	......	......	......	......	......
Wives with husbands at work	10	52.6	42.4	23.0	......	4	4	6	8
Total	19	100.0	44.0	23.2	......	4	8	12	15
PENNSYLVANIA.									
Widows	41	45.6	42.3	[a]21.6	4	4	17	21	35
Deserted and divorced wives	10	11.1	44.5	22.7	1	4	4	4	8
Wives of incapacitated husbands	4	4.4	53.5	30.8	......	......	......	......	1
Wives of idle husbands	3	3.3	40.7	20.0	......	......	2	1	1
Wives with husbands at work	32	35.6	39.9	[a]19.6	11	18	23	27	27
Total	90	100.0	42.1	21.4	16	26	46	53	72

[a] Not including 1 not reported.

approximate. The probability of error in these figures is discussed in detail on page 508.

An examination of that part of the table relating to Pennsylvania shows, in the representative families for which information was secured, a total of 90 married women at work, 41, or 45.7 per cent, of these being widows, 10 deserted wives, 4 wives of incapacitated husbands, 3 wives of idle husbands, and 32, or 35.6 per cent, wives with husbands also at work. The average age of the 90 women was 42.1 years, and the average years married for 88 of them was 21.4 years, there being two for whom no report was made on this point. Sixteen of the women had children 2 years of age or younger, 26 had children 3 to 5 years of age, and 46 had children 6 to 9 years of age. The average earnings for the entire group of married women were reported as $148, and the average family income, excluding the earnings of wives, $511. The average per capita weekly income, excluding also the earnings of wives, was $1.79. Nineteen of the families had a per capita income of less than $1 per week, 37 had a per capita income of less than $1.50 per week, while 60, or 66.7 per cent, had a per capita income of less than $2 per week. All of these facts are shown for each class of married women. The sections of the table relating to the various States present a similar series of figures.

FAMILIES OF WIDOWS, DESERTED WIVES, WIVES OF IDLE HUSBANDS, STATE AND FOR ALL STATES COMBINED.

Families of married women at work.											
Average size of families.	Average annual income per family.		Average per capita weekly income of families excluding earnings of wives.	Having per capita weekly income (excluding earnings of wives) of—							
	Earnings of wives.	Excluding earnings of wives.		Less than $1.		Less than $1.50.		Less than $2.		$2 and over.	
				Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
2.7	$152	$268	$1.93					2	66.7	1	33.3
3.0	600	412	2.64							1	100.0
5.7	218	512	1.74			1	33.3	2	66.7	1	33.3
4.0	244	393	1.89			1	14.3	4	57.1	3	42.9
4.7	181	436	1.80			1	16.7	4	66.7	2	33.3
4.5	111	260	1.11	1	50.0	2	100.0	2	100.0		
5.0	90	981	3.77							1	100.0
5.2	81	926	3.42			2	20.0	3	30.0	7	70.0
4.9	116	704	2.74	1	5.3	5	26.3	9	47.4	10	52.6
4.8	173	507	2.05	10	24.4	15	36.6	25	61.0	16	39.0
4.5	142	410	1.75	1	10.0	3	30.0	7	70.0	3	30.0
3.3	207	282	1.67	1	25.0	2	50.0	3	75.0	1	25.0
5.0	193	395	1.52	1	33.3	2	66.7	3	100.0		
7.0	106	587	1.61	6	18.8	15	46.9	22	68.8	10	31.2
5.5	148	511	1.79	19	21.1	37	41.1	60	66.7	30	33.3

TABLE XXI.—MARRIED WOMEN AT WORK: ECONOMIC CONDITION OF WIVES WITH HUSBANDS AT WORK, ETC., FOR EACH

Condition as to husband.	Married women at work.								
	Number.	Per cent of total.	Average age.	Average years married.	Number having children of ages—				
					2 years and under.	3 to 5 years.	6 to 9 years.	10 to 13 years.	14 and 15 years.
OHIO.									
Widows	13	35.2	42.5	[a] 20.8	1	1	5	7	10
Deserted and divorced wives	11	29.7	42.5	[a] 21.4	......	3	3	3	8
Wives of incapacitated husbands	2	5.4	42.0	23.0	1	......	1	1	2
Wives of idle husbands	......	......	......	......	......	......	......	......	......
Wives with husbands at work	11	29.7	36.0	[b] 19.6	3	4	7	8	10
Total	37	100.0	40.5	[c] 20.8	5	8	16	19	30
INDIANA.									
Widows	6	40.0	40.7	20.3	......	......	1	3	6
Deserted and divorced wives	1	6.7	38.0	15.0	......	......	1	1	......
Wives of incapacitated husbands	......	......	......	......	......	......	......	......	......
Wives of idle husbands	......	......	......	......	......	......	......	......	......
Wives with husbands at work	8	53.3	33.5	[d] 14.4	2	3	5	5	7
Total	15	100.0	36.7	[d] 17.4	2	3	7	9	13
ILLINOIS.									
Widows	13	35.1	40.2	21.2	......	3	2	4	7
Deserted and divorced wives	6	16.2	40.7	22.5	......	1	......	2	3
Wives of incapacitated husbands	......	......	......	......	......	......	......	......	......
Wives of idle husbands	......	......	......	......	......	......	......	......	......
Wives with husbands at work	18	48.7	30.6	11.8	3	4	7	6	4
Total	37	100.0	35.6	16.8	3	8	9	12	14
WISCONSIN.									
Widows	1	50.0	45.0	24.0	......	......	......	1	1
Deserted and divorced wives	......	......	......	......	......	......	......	......	......
Wives of incapacitated husbands	......	......	......	......	......	......	......	......	......
Wives of idle husbands	......	......	......	......	......	......	......	......	......
Wives with husbands at work	1	50.0	50.0	22.0	......	......	1	1	1
Total	2	100.0	47.5	23.0	......	......	1	2	2
MISSOURI.									
Widows	6	37.5	46.7	24.7	......	1	3	3	4
Deserted and divorced wives	2	12.5	44.5	21.5	......	......	1	......	2
Wives of incapacitated husbands	......	......	......	......	......	......	......	......	......
Wives of idle husbands	......	......	......	......	......	......	......	......	......
Wives with husbands at work	8	50.0	38.9	16.5	2	......	1	2	4
Total	16	100.0	42.5	20.2	2	1	5	5	10
WEST VIRGINIA.									
Widows	19	42.2	42.8	22.6	1	2	5	12	11
Deserted and divorced wives	12	26.7	42.8	20.1	......	2	3	5	8
Wives of incapacitated husbands	3	6.7	35.0	17.3	2	2	3	3	......
Wives of idle husbands	......	......	......	......	......	......	......	......	......
Wives with husbands at work	11	24.4	39.8	20.8	3	2	3	9	8
Total	45	100.0	41.6	21.2	6	8	14	29	27
SOUTHERN STATES. (e)									
Widows	5	21.7	46.8	[b] 22.3	1	2	1	2	4
Deserted and divorced wives	2	8.7	42.0	21.5	......	......	1	2	2
Wives of incapacitated husbands	1	4.4	60.0	42.0	......	......	......	......	1
Wives of idle husbands	......	......	......	......	......	......	......	......	......
Wives with husbands at work	15	65.2	40.1	17.7	7	4	8	13	10
Total	23	100.0	42.6	[b] 19.8	8	6	10	17	17

[a] Not including 1 not reported.
[b] Not including 2 not reported.
[c] Not including 4 not reported.

FAMILIES OF WIDOWS, DESERTED WIVES, WIVES OF IDLE HUSBANDS, STATE AND FOR ALL STATES COMBINED—Continued.

Families of married women at work.											
Average size of families.	Average annual income per family.		Average per capita weekly income of families excluding earnings of wives.	Having per capita weekly income (excluding earnings of wives) of—							
				Less than $1.		Less than $1.50.		Less than $2.		$2 and over.	
	Earnings of wives.	Excluding earnings of wives.		Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
4.5	$182	$421	$1.81	2	15.4	7	53.8	9	69.2	4	30.8
4.1	161	354	1.66	3	27.3	5	45.5	8	72.7	3	27.3
5.0	89	98	.38	2	100.0	2	100.0	2	100.0		
6.0	99	648	2.08			4	36.4	5	45.5	6	54.5
4.8	146	451	1.79	7	18.9	18	48.6	24	64.9	13	35.1
3.2	140	495	3.00	1	16.7	2	33.3	3	50.0	3	50.0
3.0	104	25	.16	1	100.0	1	100.0	1	100.0		
6.5	59	759	2.25			2	25.0	4	50.0	4	50.0
4.9	94	604	2.36	2	13.3	5	33.3	8	53.3	7	46.7
3.9	167	513	2.52	5	38.5	6	46.2	6	46.2	7	53.8
3.2	265	349	2.12	1	16.7	1	16.7	3	50.0	3	50.0
4.3	213	496	2.23	2	11.1	6	33.3	6	33.3	12	66.7
4.0	205	478	2.31	8	21.6	13	35.1	15	40.5	22	59.5
7.0	225	1,015	2.79							1	100.0
9.0	600	974	2.08							1	100.0
8.0	413	995	2.39							2	100.0
4.0	174	385	1.85	1	16.7	2	33.3	4	66.7	2	33.3
4.5	176	497	2.12					1	50.0	1	50.0
3.9	110	595	2.95							8	100.0
4.0	142	504	2.42	1	6.3	2	12.5	5	31.3	11	68.7
4.1	179	390	1.85	5	26.3	8	42.1	11	57.9	8	42.1
3.7	224	425	2.23	2	16.7	6	50.0	7	58.3	5	41.7
6.3	220	162	.49	2	66.7	3	100.0	3	100.0		
5.8	111	773	2.55			2	18.2	6	54.5	5	45.5
4.5	177	478	2.03	9	20.0	19	42.2	27	60.0	18	40.0
5.6	80	406	1.40	1	20.0	2	40.0	4	80.0	1	20.0
5.5	105	352	1.23			2	100.0	2	100.0		
8.0	52	636	1.53					1	100.0		
6.9	85	670	1.87	2	13.3	6	40.0	9	60.0	6	40.0
6.5	84	583	1.72	3	13.0	10	43.5	16	69.6	7	30.4

[d] Not including 3 not reported.

[e] Maryland, Virginia, Tennessee, South Carolina, and Georgia.

TABLE XXI.—MARRIED WOMEN AT WORK: ECONOMIC CONDITION OF WIVES WITH HUSBANDS AT WORK, ETC., FOR EACH

Condition as to husband.	Married women at work.								
					Number having children of ages—				
	Number.	Per cent of total.	Average age.	Average years married.	2 years and under.	3 to 5 years.	6 to 9 years.	10 to 13 years.	14 and 15 years.
OTHER THAN SOUTHERN STATES.									
Widows	108	40.3	42.7	[a]22.1	6	11	37	55	80
Deserted and divorced wives	44	16.4	42.8	[b]21.5	1	10	13	17	30
Wives of incapacitated husbands	11	4.1	45.6	25.7	3	2	4	4	5
Wives of idle husbands	3	1.1	40.7	20.0	......	......	2	1	1
Wives with husbands at work	102	38.1	37.6	[c]18.1	24	35	52	67	72
Total	268	100.0	40.9	[d]20.6	34	58	108	144	188
ALL STATES.									
Widows	113	38.9	42.9	[e]22.1	7	13	38	57	84
Deserted and divorced wives	46	15.8	42.8	[b]21.5	1	10	14	19	32
Wives of incapacitated husbands	12	4.1	46.8	27.1	3	2	4	4	6
Wives of idle husbands	3	1.0	40.7	20.0	......	......	2	1	1
Wives with husbands at work	117	40.2	37.9	[c]18.0	31	39	60	80	82
Total	291	100.0	41.0	[f]20.6	42	64	118	161	205

[a] Not including 2 not reported. [b] Not including 1 not reported. [c] Not including 6 not reported.

FAMILIES OF WIDOWS, DESERTED WIVES, WIVES OF IDLE HUSBANDS, STATE AND FOR ALL STATES COMBINED—Concluded.

Families of married women at work.											
Average size of families.	Average annual income per family.		Average per capita weekly income of families excluding earnings of wives.	Having per capita weekly income (excluding earnings of wives) of—							
	Earnings of wives.	Excluding earnings of wives.		Less than $1.		Less than $1.50.		Less than $2.		$2 and over.	
				Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
4.4	$173	$463	$2.05	24	22.2	41	38.0	64	59.3	44	40.7
4.0	185	380	1.85	9	20.5	18	40.9	29	65.9	15	34.1
4.6	214	291	1.23	5	45.5	7	63.6	8	72.7	3	27.3
5.0	193	395	1.52	1	33.3	2	66.7	3	100.0	....	....
5.8	127	647	2.14	8	7.8	32	31.4	48	47.1	54	52.9
4.9	159	512	2.03	47	17.5	100	37.3	152	56.7	116	43.3
4.5	169	460	1.99	25	22.1	43	38.1	68	60.2	45	39.8
4.1	182	379	1.79	9	19.6	20	43.5	31	67.4	15	32.6
4.9	201	320	1.26	5	41.7	7	58.3	9	75.0	3	25.0
5.0	193	395	1.52	1	33.3	2	66.7	3	100.0	....	....
5.9	122	650	2.10	10	8.5	38	32.5	57	48.7	60	51.3
5.0	154	517	1.98	50	17.2	110	37.8	168	57.7	123	42.3

[d] Not including 9 not reported. [e] Not including 4 not reported. [f] Not including 11 not reported.

TABLE XXII.—MARRIED WOMEN AT WORK LIVING IN HOMES OTHER THAN THEIR OWN AND ECONOMIC CONDITION OF THEIR FAMILIES.

This table is somewhat similar to the preceding Table XXI and presents the facts in regard to the married women at work who lived in families other than their own. As in the preceding table, the women are divided into groups according to the condidtion as to husband. The relationship to the family in which they lived is shown; that is, whether they were daughters, mothers, or sisters and others. The facts as to income are also shown, not only for these women themselves, but likewise for the families with which they were living. The whole number of such married women found in the representative families visited was only 35, and these have been brought together in a single table, inasmuch as the number in any one State was not sufficient to justify a separate presentation.

TABLE XXII.—MARRIED WOMEN AT WORK LIVING IN HOMES OTHER
DESERTED WIVES, WIVES OF IDLE HUSBANDS, WIVES WITH

Condition as to husband.	Married women at work.									
	Number.	Per cent.	Relationship to family they live with.						Average age (years).	Average days worked past year.
			Daughters and daughters-in-law.		Mothers.		Sisters and others.			
			Number.	Per cent.	Number.	Per cent.	Number.	Per cent.		
Widows	17	48.6	13	76.5	3	17.6	1	5.9	31.8	170
Deserted and divorced wives	16	45.7	16	100.0	......	......	......	......	26.3	214
Wives of incapacitated husbands	......	......	......	......	......	......	......	......	......	......
Wives of idle husbands	......	......	......	......	......	......	......	......	......	......
Wives with husbands at work	2	5.7	2	100.0	......	......	......	......	20.5	254
Total	35	100.0	31	88.6	3	8.6	1	2.8	28.6	195

An examination of the table shows that of the 35 women in this group 17 were widows, 16 were deserted or divorced wives, and 2 were wives with husbands at work. Thirty-one, or 88.6 per cent, of the women were daughters or daughters-in-law of the head of the families with which they lived, 3 were mothers of the head of the family, and 1 was a sister or other relative. Four of the women had children 2 years of age or younger, 11 had children 3 to 5, and 12 had children 6 to 9. The average earnings per family of the families of these women show that the earnings of the wives amounted to $203, the average earnings of the other members, in 4 families, were $302, and the average earnings of all members of the family were $240, making a per capita weekly income of $2.10. In regard to the families with which these women were living, the average income per family is shown to have been $1,053, equivalent to a per capita weekly income of $3.11.

THAN THEIR OWN: ECONOMIC CONDITION OF FAMILIES OF WIDOWS, HUSBANDS AT WORK, ETC., FOR ALL STATES COMBINED.

Married women at work.						Families of married women at work.					Families with which they live.		
Number having children of ages—						Average earnings per family of—				Average per capita weekly income.	Average size.	Average income.	Per capita weekly income.
2 years and under.	3 to 5 years.	6 to 9 years.	10 to 13 years.	14 and 15 years.	16 years and over.	Wives.	Other members.		All members.				
							Number of families.	Earnings.					
1	8	6	3	1	1	$207	2	$129	$222	$1.86	6.3	$1,045	$3.19
3	3	6	1	1	......	192	....	......	192	1.74	6.8	1,070	3.03
....	......	......	......	......	......	......	....	......	......	......	......	......	....
....	......	......	......	......	......	257	2	525	782	7.52	6.0	994	3.19
4	11	12	4	2	1	203	4	302	240	2.10	6.5	1,053	3.11

TABLE XXIII.—MARRIED WOMEN AT WORK HAVING CHILDREN UNDER 14 AT WORK.

This table shows for all States combined, for the families having both married women at work and children under 14 years of age at work, the facts as to income during the past year, the married women being grouped according as they were widows, deserted or divorced wives, wives of incapacitated husbands, of idle husbands, or wives of husbands at work. The facts upon which this table is based are presented in detail for each woman and her family in Table XXIX, in connection with which full explanation is given in regard to the selection of the families and the method followed in securing the facts from the families. It should be said here, however, that the figures in regard to income, being secured in the home from the members of the family, are necessarily only approximate. The probability of error in these figures is discussed in detail on page 508.

Reference to the table shows that the families from which reports were obtained included only 42 cases where both the mother and the child under 14 years of age were at work. In 16 of these cases the mother was a widow, 5 were deserted or divorced wives, 1 had an incapacitated husband, while in 20 cases the husband also was a wage-earner. The average family income for the 42 families, excluding the earnings of the wives and of children under 14, was $377, equivalent to a per capita weekly income of $1.28. However, it is shown that for 14 of the families the per capita income was less than $1, for 31 families it was less than $1.50, and for 36 families less than $2. The figures for each group may be read in like manner.

TABLE XXIII.—MARRIED WOMEN AT WORK HAVING CHILDREN UNDER 14 YEARS OF AGE AT WORK: INCOME (EXCLUDING THAT OF WIVES AND CHILDREN UNDER 14) OF FAMILIES OF WIDOWS, DESERTED WIVES, WIVES OF IDLE HUSBANDS, WIVES WITH HUSBANDS AT WORK, ETC., FOR ALL STATES COMBINED.

Condition as to husband.	Number.	Average annual family income, excluding that from wives and from children under 14 years.	Average per capita weekly income, excluding that from wives and from children under 14 years.	Families having weekly per capita income (excluding earnings of wives and of children under 14 years) of—							
				Less than $1.		Less than $1.50.		Less than $2.		$2 and over.	
				Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Widows	16	$294	$1.26	5	31.3	13	81.3	14	87.5	2	12.5
Deserted and divorced wives	5	194	.89	2	40.0	4	80.0	5	100.0	......	......
Wives of incapacitated husbands	1	190	.46	1	100.0	1	100.0	1	100.0	......	......
Wives of idle husbands	......	......	......	......	......	......	......	......	......	......	......
Wives with husbands at work	20	499	1.39	6	30.0	13	65.0	16	80.0	4	20.0
Total	42	377	1.28	14	33.3	31	73.8	36	85.7	6	14.3

TABLE XXIV.—FATHERS AT WORK HAVING CHILDREN UNDER 14 AT WORK.

This table shows for all States combined, for the families having fathers at work and children under 14 years of age at work, the number of days worked during the past year by fathers, and the number of children of those fathers who were at work. The days worked are presented classified as 50 or less, 51 to 100, 101 to 150, and by fifties up to 300 days. Those who worked over 300 days are grouped together. The selection of the representative families and the securing of the detailed data upon which this table is based are fully explained in connection with Table XXVII. The facts in regard to the number of days worked during the past year and earnings, being secured from members of the family in the home, are necessarily only approximate. The probability of error in these figures is discussed in detail on page 508.

An examination of the table shows for the families from which reports were obtained 136 fathers at work with children under 14 years of age at work who reported as to days worked during the past year. Of these, 1 worked less than 50 days, earning $60; 3 worked 51 to 100 days, earning an average of $276; and 17 worked over 300 days, earning $595. In the families of these 136 fathers at work there were 151 children under 14 at work.

TABLE XXIV.—FATHERS AT WORK HAVING CHILDREN UNDER 14 YEARS OF AGE AT WORK: AVERAGE EARNINGS OF FATHERS, BY DAYS WORKED, AND NUMBER OF CHILDREN AT WORK OF SUCH FATHERS, FOR ALL STATES COMBINED.

Days worked.	Fathers who worked specified number of days.			Children of fathers who worked specified number of days.	
	Number.	Per cent of those reporting.	Average earnings.	Number.	Per cent of those reporting.
50 and under	1	0.7	$60	1	0.7
51 to 100	3	2.2	276	3	2.0
101 to 150	13	9.6	345	15	9.9
151 to 200	30	22.1	347	33	21.8
201 to 250	43	31.6	448	46	30.5
251 to 300	29	21.3	509	30	19.9
Over 300	17	12.5	595	23	15.2
Total reporting	136	100.0	440	151	100.0
Not reporting	1	....	440	1	....

TABLE XXV.—LITERACY AND SCHOOL ATTENDANCE OF GLASS FACTORY EMPLOYEES.

This table shows for groups of States and for all States combined the facts as to literacy and school attendance for representative woman and child glass factory workers, by nativity and age. The selection of the representative families and the securing of the detailed data upon which this table is based are fully explained in connection with Table XXVII. The grouping of the States is the same as that explained in connection with Table XI.

Reference to that part of the table relating to the first group shows that reports as to literacy and school attendance were secured relative to 75 native-born males of native parentage under 14 years of age,

TABLE XXV.—LITERACY AND SCHOOL ATTENDANCE OF REPRESENTA AND AGE, FOR STATE GROUPS AND

PENNSYLVANIA, NEW JERSEY, WEST VIRGINIA.

Sex, nativity, and age.	Total number of persons.	Persons who attended school—					
		Less than 5 months.	5 to 9 months.	10 to 19 months.	20 to 29 months.	30 to 39 months.	40 to 49 months.
MALES.							
Native of native parents (white):							
Under 11 years	3	....	....	1	....	1	1
11 years	6	....	1	....	....	2	2
12 years	19	....	....	....	3	5	5
13 years	47	....	....	....	5	11	10
Total under 14 years	75	....	1	1	8	19	18
14 years	254	....	....	5	11	23	48
15 years	171	1	1	2	4	15	28
Total under 16 years	500	1	2	8	23	57	94
Native of native parents (colored):							
Under 11 years	1	....	....	....	1	....	....
11 years	1	....	....	....	....	1	....
Total under 14 years	2	....	....	....	1	1	....
14 years	2	....	....	1	....	....	....
15 years	3	....	....	....	....	1	....
Total under 16 years	7	....	....	1	1	2	....
Native of foreign parents:							
Under 11 years	2	....	....	....	2	....	....
11 years	1	....	....	....	....	1	....
12 years	10	....	....	....	2	4	3
13 years	23	....	....	2	....	2	5
Total under 14 years	36	....	....	2	4	7	8
14 years	208	....	....	3	6	10	33
15 years	144	1	1	3	3	6	17
Total under 16 years	388	1	1	8	13	23	58
Foreign born:							
Under 11 years	2	1	....	....	....	....	1
12 years	1	....	....	1	....	....	....
13 years	14	....	1	1	1	1	4
Total under 14 years	17	1	1	2	1	1	5
14 years	48	....	2	....	6	9	10
15 years	53	....	2	1	4	8	8
Total under 16 years	118	1	5	3	11	18	23

[a] Not including 4 not reported.

[b] Not including 1 not reported.

three of these being under 11 years of age, six 11 years, nineteen 12 years, and forty-seven 14 years of age. One of these boys reported a school attendance of between 5 and 9 months, one between 10 and 19 months, 8 between 20 and 29 months, 19 between 30 and 39 months, 18 between 40 and 49 months, 14 between 50 and 59 months, 12 between 60 and 69 months, and 2 between 70 and 79 months. The average months of school attendance for the 75 were 43.1, and the average age at leaving school was 11.7 years. The table shows also that 69 of these boys could read or write English, and that 6 of them could not read or write any language. The details of this table may be read in a similar way for both sexes of the various ages and for the different nativities in each group of States and for all States combined.

TIVE WOMAN AND CHILD GLASS FACTORY EMPLOYEES, BY NATIVITY FOR ALL STATES COMBINED.

PENNSYLVANIA, NEW JERSEY, WEST VIRGINIA.

Persons who attended school.					Average months school attendance.	Average age at leaving school.	Persons who—			
50 to 59 months.	60 to 69 months.	70 to 79 months.	80 months and over.	Total.			Never attended school.	Can read or write English.	Can read or write other language only.	Can not read or write.
....	....	....	....	3	30.0	9.7	....	2	....	1
1	....	....	....	6	34.3	10.7	....	5	....	1
5	1	....	....	19	39.4	11.3	....	18	....	1
8	11	2	....	47	46.6	12.2	....	44	....	3
14	12	2	....	75	43.1	11.7	....	69	....	6
62	68	30	2	a 249	a 52.7	a 13.1	1	250	....	4
42	52	21	4	b 170	b 54.0	b 13.4	....	164	....	7
118	132	53	6	c 494	c 51.7	c 13.0	1	483	....	17
....	....	....	....	1	24.0	8.0	....	1	....	....
....	....	....	....	1	32.0	10.0	....	1	....	....
....	....	....	....	2	28.0	9.0	....	2	....	....
1	....	....	....	2	30.0	13.5	....	2	....	....
2	....	....	....	3	47.3	13.7	....	3	....	....
3	....	....	....	7	36.9	12.3	....	7	....	....
....	....	....	....	2	23.5	9.5	....	1	....	1
....	....	....	....	1	36.0	11.0	....	1	....	....
1	....	....	....	10	35.5	11.0	....	10	....	....
7	5	2	....	23	50.0	12.3	....	21	....	2
8	5	2	....	36	44.1	11.8	....	33	....	3
58	65	26	7	208	55.5	13.2	....	203	3	2
34	51	20	7	143	56.3	13.3	1	140	2	2
100	121	48	14	387	54.8	13.1	1	376	5	7
....	....	....	....	2	21.0	9.5	....	....	1	1
....	....	....	....	1	18.0	9.0	....	....	1	....
5	1	....	....	14	41.2	11.6	....	12	1	1
5	1	....	....	17	37.5	11.2	....	12	3	2
8	8	3	1	47	45.1	12.7	1	33	11	4
12	10	4	1	50	47.8	13.0	3	36	12	5
25	19	7	2	114	45.1	12.6	4	81	26	11

c Not including 5 not reported.

TEBLE XXV.—LITERACY AND SCHOOL ATTENDANCE OF REPRESENTA AND AGE, FOR STATE GROUPS AND FOR

PENNSYLVANIA, NEW JERSEY, WEST VIRGINIA—Continued.

Sex, nativity, and age.	Total number of persons.	Persons who attended school—					
		Less than 5 months.	5 to 9 months.	10 to 19 months.	20 to 29 months.	30 to 39 months.	40 to 49 months.
MALES—concluded.							
All nativities:							
Under 11 years	8	1	....	1	3	1	2
11 years	8	....	1	....	....	4	2
12 years	30	....	....	1	5	9	8
13 years	84	....	1	3	6	14	19
Total under 14 years	130	1	2	5	14	28	31
14 years	512	....	2	9	23	42	91
15 years	371	2	4	6	11	30	53
Total under 16 years	1,013	3	8	20	48	100	175
FEMALES.							
Native of native parents (white):							
12 years	2	....	....	....	....	....	2
13 years	5	....	....	....	....	1	2
Total under 14 years	7	....	....	....	....	1	4
14 years	29	....	....	1	2	4	6
15 years	48	....	....	....	1	2	17
Total under 16 years	84	....	....	1	3	7	27
16 years	68	....	....	2	3	2	10
17 years	45	....	....	....	....	1	6
18 years	45	....	....	1	2	2	5
19 years	32	....	....	....	1	2	3
20 years	27	....	....	....	....	....	3
21 years	29	....	....	....	....	2	2
22 years	20	....	....	1	1	....	3
23 years	11	....	....	....	1	1	2
24 years	14	....	....	....	....	1	1
25 to 34 years	37	....	1	....	1	5	4
35 to 44 years	6	....	1	....	....	....	....
45 to 54 years	3	....	....	1	2	....	....
Total, all ages	421	....	2	6	14	23	66
Native of foreign parents:							
12 years	1	....	....	....	....	....	....
13 years	6	....	....	....	....	....	1
Total under 14 years	7	....	....	....	....	....	1
14 years	69	....	....	1	3	9	7
15 years	71	....	....	2	1	3	9
Total under 16 years	147	....	....	3	4	12	17
16 years	90	....	2	3	1	2	15
17 years	63	....	....	1	1	2	9
18 years	45	....	....	....	1	4	4
19 years	33	....	....	....	1	....	9
20 years	19	....	....	....	....	....	6
21 years	12	....	....	....	....	....	3
22 years	14	....	....	....	....	1	1
23 years	6	....	....	....	....	....	....
24 years	7	....	....	....	1	....	....
25 to 34 years	15	....	....	....	....	2	3
35 to 44 years	8	....	....	....	2	....	....
45 to 54 years	1	....	....	....	....	....	1
Total, all ages	460	....	2	7	11	23	68

[a] Not including 4 not reported.

[b] Not including 1 not reported.

TIVE WOMAN AND CHILD GLASS FACTORY EMPLOYEES, BY NATIVITY ALL STATES COMBINED—Continued.

PENNSYLVANIA, NEW JERSEY, WEST VIRGINIA—Continued.

Persons who attended school—					Average months school attendance.	Average age at leaving school.	Persons who—			
50 to 59 months.	60 to 69 months.	70 to 79 months.	80 months and over.	Total.			Never attended school.	Can read or write English.	Can read or write other language only.	Can not read or write.
....	....	....	....	8	25.4	9.4	....	4	1	3
1	....	....	....	8	34.2	10.7	....	7	....	1
6	1	....	....	30	37.4	11.1	....	28	1	1
20	17	4	....	84	46.6	12.1	....	77	1	6
27	18	4	....	130	42.4	11.6	....	116	3	11
129	141	59	10	a 506	a 53.1	a 13.1	2	488	14	10
90	113	45	12	b 366	b 54.0	b 13.3	4	343	14	14
246	272	108	22	c 1,002	c 52.0	c 13.0	6	947	31	35
....	....	....	....	2	43.5	12.0	....	2	....	....
2	....	....	....	5	47.2	12.6	....	5	....	....
2	....	....	....	7	46.1	12.4	....	7	....	....
8	4	3	1	29	49.4	13.0	....	29	....	....
10	9	6	3	48	54.3	13.5	....	48	....	....
20	13	9	4	84	51.9	13.3	....	84	....	....
13	19	12	7	68	58.3	13.8	....	68	....	....
7	13	10	8	45	64.1	14.2	....	45	....	....
4	15	12	4	45	60.2	14.2	....	45	....	....
9	6	3	7	31	61.6	14.6	1	32	....	....
4	9	7	4	27	64.9	14.2	....	27	....	....
8	7	3	7	29	64.6	14.8	....	29	....	....
4	4	3	4	20	60.6	15.1	....	20	....	....
2	3	1	1	11	56.6	15.0	....	11	....	....
1	2	4	5	14	72.1	15.2	....	14	....	....
5	7	8	6	37	59.2	14.4	....	37	....	....
....	1	1	3	6	71.3	14.7	....	6	....	....
....	....	....	....	3	18.3	11.6	....	3	....	....
77	99	73	60	420	59.5	14.1	1	421	....	....
1	....	....	....	1	50.0	11.0	....	1	....	....
2	3	....	....	6	56.3	12.7	....	6	....	....
3	3	....	....	7	55.4	12.4	....	7	....	....
16	21	9	3	69	54.3	13.0	....	69	....	....
16	20	15	5	71	58.4	13.2	....	70	1	....
35	44	24	8	147	56.3	13.1	....	146	1	....
11	34	14	8	90	57.1	13.5	....	86	1	3
10	19	13	6	61	59.8	13.6	2	60	2	1
11	12	6	6	b 44	b 58.9	b 13.6	....	44	1	....
6	8	6	2	b 32	b 57.3	b 13.6	....	32	....	1
2	4	4	3	19	61.1	13.5	....	19	....	....
2	2	4	1	12	60.6	14.3	....	12	....	....
1	5	4	2	14	63.4	13.6	....	14	....	....
1	1	2	2	6	70.0	13.8	....	6	....	....
....	2	2	2	7	66.1	13.6	....	7	....	....
1	2	4	3	15	61.5	13.7	....	15	....	....
1	2	1	1	7	54.4	13.7	1	8	....	....
....	....	....	....	1	40.0	11.0	....	1	....	....
81	135	84	44	d 455	d 57.6	d 13.3	3	450	5	5

c Not including 5 not reported.

d Not including 2 not reported.

TABLE XXV.—LITERACY AND SCHOOL ATTENDANCE OF REPRESENTA AND AGE, FOR STATE GROUPS AND FOR

PENNSYLVANIA, NEW JERSEY, WEST VIRGINIA—Concluded.

Sex, nativity, and age.	Total number of persons.	Persons who attended school—					
		Less than 5 months.	5 to 9 months.	10 to 19 months.	20 to 29 months.	30 to 39 months.	40 to 49 months.
FEMALES—concluded.							
Foreign born:							
14 years	12					1	3
15 years	17		1			2	2
Total under 16 years	29		1			3	5
16 years	31	1	1	2	3	3	6
17 years	30			2	1	5	5
18 years	17			1		1	3
19 years	17				3		1
20 years	22				2	4	1
21 years	10						1
22 years	11				1		1
23 years	9					1	1
24 years	4					2	
25 to 34 years	15				1	1	1
35 to 44 years	7				1		3
45 to 54 years	3						
Total, all ages	205	1	2	5	12	20	28
All nativities:							
12 years	3						2
13 years	11					1	3
Total under 14 years	14					1	5
14 years	110			2	5	14	16
15 years	136		1	2	2	7	28
Total under 16 years	260		1	4	7	22	49
16 years	189	1	3	7	7	7	31
17 years	138			3	2	8	20
18 years	107			2	3	7	12
19 years	82				5	2	13
20 years	68				2	4	10
21 years	51					2	6
22 years	45			1	2	1	5
23 years	26				1	2	3
24 years	25				1	3	1
25 to 34 years	67		1		2	8	8
35 to 44 years	21		1		3		3
45 to 54 years	7			1	2		1
Total, all ages	1,086	1	6	18	37	66	162

NEW YORK, OHIO, INDIANA, ILLINOIS, WISCONSIN, MISSOURI.

MALES.							
Native of native parents (white):							
13 years	3						1
Total under 14 years	3						1
14 years	113				1	2	15
15 years	135			1	1	4	16
Total under 16 years	251			1	2	6	32
Native of native parents (colored):							
14 years	12					4	1
15 years	11			1			4
Total under 16 years	23			1		4	5

[a] Not including 1 not reported.

[b] Not including 2 not reported.

TIVE WOMAN AND CHILD GLASS FACTORY EMPLOYEES, BY NATIVITY ALL STATES COMBINED—Continued.

PENNSYLVANIA, NEW JERSEY, WEST VIRGINIA—Concluded.

Persons who attended school—					Average months school attendance.	Average age at leaving school.	Persons who—			
50 to 59 months.	60 to 69 months.	70 to 79 months.	80 months and over.	Total.			Never attended school.	Can read or write English.	Can read or write other language only.	Can not read or write.
3	5	....	....	12	52.0	13.3	....	10	2	....
3	4	1	4	17	58.1	13.2	....	16	1	....
6	9	1	4	29	55.6	13.2	....	26	3	....
4	6	4	1	31	45.9	12.7	....	24	6	1
6	3	2	4	28	50.7	13.0	2	16	14	....
5	4	....	1	15	52.3	12.9	2	9	7	1
2	4	2	2	14	55.8	14.4	3	8	8	1
4	4	2	2	19	52.1	13.2	3	17	3	2
2	2	2	1	8	61.3	13.5	2	8	....	2
3	2	1	2	10	58.9	13.2	1	8	2	1
2	2	2	1	9	60.3	13.6	....	8	1	....
....	....	....	1	a 3	a 52.0	a 13.7	....	4	....	....
2	2	4	....	11	55.5	13.6	4	10	3	2
1	....	....	....	5	42.0	11.6	2	5	1	1
1	....	....	....	b 1	b 54.0	b 13.0	....	2	1	....
38	38	20	19	c 183	c 52.8	c 13.2	19	145	49	11
1	....	....	....	3	45.7	11.7	....	3	....	....
4	3	....	....	11	52.2	12.7	....	11	....	....
5	3	....	....	14	50.8	12.4	....	14	....	....
27	30	12	4	110	52.8	13.0	....	108	2	....
29	33	22	12	136	56.9	13.3	....	134	2	....
61	66	34	16	260	54.8	13.2	....	256	4	....
28	59	30	16	189	55.7	13.5	....	178	7	4
23	35	25	18	134	59.3	13.7	4	121	16	1
20	31	18	11	a 104	a 58.5	a 13.8	2	98	8	1
17	18	11	11	a 77	a 58.8	a 14.1	4	72	8	2
10	17	13	9	65	60.0	13.7	3	63	3	2
12	11	9	9	49	63.1	14.5	2	49	....	2
8	11	8	8	44	61.1	14.2	1	42	2	1
5	6	5	4	26	61.0	14.2	....	25	1	....
1	4	6	8	a 24	a 67.8	a 14.5	....	25	....	....
8	11	16	9	63	59.1	14.1	4	62	3	2
2	3	2	4	18	56.6	13.5	3	19	1	1
1	....	....	....	b 5	b 29.8	b 11.8	....	6	1	....
196	272	177	123	d 1,058	d 57.8	d 13.7	23	1,016	54	16

NEW YORK, OHIO, INDIANA, ILLINOIS, WISCONSIN, MISSOURI.

....	1	1	....	3	58.3	12.7	....	3	....	....
....	1	1	....	3	58.3	12.7	....	3	....	....
33	18	29	15	113	61.1	13.6	....	112	....	1
30	44	33	6	135	60.0	13.8	....	134	....	1
63	63	63	21	251	60.5	13.7	....	249	....	2
2	3	1	1	12	49.2	13.3	....	12	....	....
3	3	....	....	11	48.5	13.8	....	11	....	....
5	6	1	1	23	48.9	13.5	....	23	....	....

c Not including 3 not reported.

d Not including 5 not reported.

TABLE XXV.—LITERACY AND SCHOOL ATTENDANCE OF REPRESENTA AND AGE, FOR STATE GROUPS AND FOR

NEW YORK, OHIO, INDIANA, ILLINOIS, WISCONSIN, MISSOURI—Continued.

Sex, nativity, and age.	Total number of persons.	Persons who attended school—					
		Less than 5 months.	5 to 9 months.	10 to 19 months.	20 to 29 months.	30 to 39 months.	40 to 49 months.
MALES—concluded.							
Native of foreign parents:							
13 years	1						
Total under 14 years	1						
14 years	109				5	3	10
15 years	79					2	4
Total under 16 years	189				5	5	14
Foreign born:							
13 years	1						1
Total under 14 years	1						1
14 years	10					1	2
15 years	18			1	3	2	4
Total under 16 years	29			1	3	3	7
All nativities:							
13 years	5						2
Total under 14 years	5						2
14 years	244				6	10	28
15 years	243			3	4	8	28
Total under 16 years	492			3	10	18	58
FEMALES.							
Native of native parents (white):							
14 years	4						
15 years	14					1	
Total under 16 years	18					1	
16 years	44				1	1	4
17 years	33					2	5
18 years	42						5
19 years	18						1
20 years	16						1
21 years	8						1
22 years	5						1
23 years	7						
24 years	8						1
25 to 34 years	13					1	1
35 to 44 years	3						1
45 to 54 years	3						2
Total, all ages	218				1	5	23
Native of native parents (colored):							
16 years	6			1			1
17 years	4		1				
18 years	4						2
19 years	1				1		
20 years	4				1	1	
21 years	4			2	1		
22 years	2					1	
23 years	2						1
24 years	1						
25 to 34 years	8					4	2
35 to 44 years	7					3	1
45 to 54 years	1						1
Total, all ages	44		1	3	3	9	8

a Not including 1 not reported.

TIVE WOMAN AND CHILD GLASS FACTORY EMPLOYEES, BY NATIVITY ALL STATES COMBINED—Continued.

NEW YORK, OHIO, INDIANA, ILLINOIS, WISCONSIN, MISSOURI—Continued.

Persons who attended school—					Average months school attendance.	Average age at leaving school.	Persons who—			
50 to 59 months.	60 to 69 months.	70 to 79 months.	80 months and over.	Total.			Never attended school.	Can read or write English.	Can read or write other language only.	Can not read or write.
1	....	....	....	1	54.0	13.0	....	1	....	....
1	....	....	....	1	54.0	13.0	....	1	....	....
31	26	14	20	109	60.4	13.8	....	108	....	1
29	19	13	11	78	61.8	13.8	1	78	....	1
61	45	27	31	188	61.0	13.8	1	187	....	2
....	....	....	....	1	40.0	13.0	....	1	....	....
....	....	....	....	1	40.0	13.0	....	1	....	....
1	1	2	2	9	59.3	13.1	1	9	....	1
3	3	1	....	17	42.5	12.2	1	9	8	1
4	4	3	2	27	48.0	12.6	2	19	8	2
1	1	1	....	5	53.8	12.8	....	5	....	....
1	1	1	....	5	53.8	12.8	....	5	....	....
67	48	46	38	243	60.1	13.7	1	241	....	3
65	69	47	17	241	58.8	13.7	2	232	8	3
133	118	94	55	489	59.4	13.4	3	478	8	6
2	1	1	....	4	59.8	13.5	....	4	....	....
2	4	5	2	14	65.1	14.1	....	14	....	....
4	5	6	2	18	63.9	14.0	....	18	....	....
6	11	12	9	44	63.8	14.0	....	44	....	....
3	6	10	7	33	63.4	14.3	....	33	....	....
8	14	5	9	41	64.4	14.6	1	41	....	1
1	3	3	10	18	74 6	15.0	....	18	....	....
1	3	3	8	16	77.1	15.6	....	16	....	....
....	....	3	4	8	78.3	15.5	....	8	....	....
....	2	....	2	5	72.8	15.8	....	5	....	....
1	2	3	1	7	66.7	15.1	....	7	....	....
3	1	1	2	8	62.6	14.4	....	8	....	....
2	2	1	5	12	68.8	15.1	1	13	....	....
1	....	....	1	3	64.0	15.3	....	3	....	....
....	....	....	1	3	54.3	14.3	....	3	....	....
30	49	47	61	216	66.7	14.6	2	217	....	1
1	1	2	....	6	52.0	13.8	....	6	....	....
2	1	....	....	4	43.0	13.0	....	4	....	....
....	1	....	1	4	56.3	14.0	....	4	....	....
....	....	....	....	1	26.0	13.0	....	1	....	....
1	1	....	....	4	41.3	13.0	....	4	....	....
....	....	1	....	4	32.0	10.3	....	4	....	....
....	1	....	....	2	48.0	12.0	....	2	....	....
....	1	....	....	2	52.0	15.5	....	2	....	....
....	1	....	....	1	64.0	17.0	....	1	....	....
....	1	....	....	[a]7	[a]40.0	[a]13.7	....	7	....	1
....	....	....	....	4	35.8	12.5	3	7	....	....
....	....	....	....	1	40.0	13.0	....	1	....	....
4	8	3	1	[a]40	[a]43.9	[a]13.2	3	43	....	1

TABLE XXV.—LITERACY AND SCHOOL ATTENDANCE OF REPRESENTA AND AGE, FOR STATE GROUPS AND FOR

NEW YORK, OHIO, INDIANA, ILLINOIS, WISCONSIN, MISSOURI—Concluded.

Sex, nativity, and age.	Total number of persons.	Persons who attended school—					
		Less than 5 months.	5 to 9 months.	10 to 19 months.	20 to 29 months.	30 to 39 months.	40 to 49 months.
FEMALES—concluded.							
Native of foreign parents:							
14 years	7	....	....	....	....	....	....
15 years	23	....	....	....	1	....	3
Total under 16 years	30	....	....	....	1	....	3
16 years	30	....	....	....	....	1	2
17 years	22	....	....	....	....	....	....
18 years	24	....	....	....	....	....	....
19 years	15	....	....	....	....	1	....
20 years	7	....	....	....	....	....	....
21 years	9	....	....	....	....	....	....
22 years	5	....	....	....	....	....	1
23 years	3	....	....	....	....	....	....
24 years	3	....	....	....	....	....	....
25 to 34 years	9	....	....	....	1	....	2
35 to 44 years	4	....	....	....	....	....	1
Total, all ages	161	....	....	....	2	2	9
Foreign born:							
15 years	8	....	....	....	....	....	1
Total under 16 years	8	....	....	....	....	....	1
16 years	5	....	....	....	1	1	....
17 years	3	....	....	....	....	....	....
18 years	3	....	....	....	....	....	....
19 years	2	....	....	....	....	....	1
20 years	4	....	....	....	....	....	1
21 years	2	....	....	....	....	....	1
22 years	3	....	....	....	....	....	....
23 years	2	....	....	....	....	....	....
24 years	1	....	....	....	....	....	1
25 to 34 years	5	....	....	....	....	1	1
35 to 44 years	1	....	....	....	1	....	....
Total, all ages	39	....	....	....	2	2	6
All nativities:							
14 years	11	....	....	....	....	....	....
15 years	45	....	....	....	1	1	4
Total under 16 years	56	....	....	....	1	1	4
16 years	85	....	....	1	2	3	7
17 years	62	....	1	....	....	2	5
18 years	73	....	....	....	....	....	7
19 years	36	....	....	....	1	1	2
20 years	31	....	....	....	1	1	2
21 years	23	....	....	2	1	....	2
22 years	15	....	....	....	....	1	2
23 years	14	....	....	....	....	....	1
24 years	13	....	....	....	....	....	2
25 to 34 years	35	....	....	....	1	6	6
35 to 44 years	15	....	....	....	1	3	3
45 to 54 years	4	....	....	....	....	....	3
Total, all ages	462	....	1	3	8	18	46

[a] Not including 1 not reported.

TIVE WOMAN AND CHILD GLASS FACTORY EMPLOYEES, BY NATIVITY ALL STATES COMBINED—Continued.

NEW YORK, OHIO, INDIANA, ILLINOIS, WISCONSIN, MISSOURI—Concluded.

Persons who attended school—					Average months school attendance.	Average age at leaving school.	Persons who—			
50 to 59 months.	60 to 69 months.	70 to 79 months.	80 months and over.	Total.			Never attended school.	Can read or write English.	Can read or write other language only.	Can not read or write.
3	2	....	2	7	63.0	13.7	....	7	....	....
4	4	7	4	23	63.7	13.8	....	23	....	....
7	6	7	6	30	63.5	13.8	....	30	....	....
5	6	4	12	30	67.8	14.1	....	30	....	....
2	5	6	9	22	72.0	14.3	....	22	....	....
3	4	8	9	24	73.0	14.4	....	24	....	....
....	5	4	5	15	70.7	14.5	....	15	....	....
....	3	2	2	7	72.4	14.9	....	7	....	....
2	....	1	6	9	76.4	14.9	....	9	....	....
....	1	....	3	5	76.0	14.4	....	5	....	....
....	1	....	2	3	76.3	14.3	....	3	....	....
....	2	....	1	3	68.3	16.0	....	3	....	....
....	1	2	3	9	64.8	14.4	....	9	....	....
1	....	....	2	4	63.8	14.8	....	4	....	....
20	34	34	60	161	69.5	14.3	....	161	....	....
....	7	....	....	8	59.8	13.3	....	7	1	....
....	7	....	....	8	59.8	13.3	....	7	1	....
....	3	....	....	5	49.6	12.6	....	5	....	....
....	2	1	....	3	65.7	14.3	....	3	....	....
....	2	1	....	3	63.3	14.3	....	3	....	....
....	....	1	....	2	55.0	13.0	....	1	1	....
1	....	....	1	a 3	a 56.7	a 12.3	....	3	1	....
....	....	....	....	1	40.0	13.0	1	1	....	1
....	....	....	2	2	85.0	16.0	1	2	....	1
1	1	....	....	2	57.0	13.5	....	2	....	....
....	....	....	....	1	48.0	13.0	....	1	....	....
....	1	....	....	3	46.7	11.7	2	3	....	2
....	....	....	....	1	20.0	8.0	....	1	....	....
2	16	3	3	a 34	a 56.6	a 13.1	4	32	3	4
5	3	1	2	11	61.8	13.6	....	11	....	....
6	15	12	6	45	63.4	13.8	....	44	1	....
11	18	13	8	56	63.1	13.8	....	55	1	....
12	21	18	21	85	63.5	13.9	....	85	....	....
7	14	17	16	62	65.2	14.2	....	62	....	....
11	21	14	19	72	66.8	14.5	1	72	....	1
1	8	8	15	36	70.5	14.6	....	35	1	....
3	7	5	11	a 30	a 69.2	a 14.8	....	30	1	....
2	....	5	10	22	67.4	14.2	1	22	....	1
....	4	....	7	14	72.1	14.8	1	14	....	1
2	5	3	3	14	65.3	14.8	....	14	....	....
3	4	1	3	13	62.9	14.9	....	13	....	....
2	5	3	8	a 31	a 59.0	a 14.3	3	32	....	3
2	....	....	3	12	50.9	13.6	3	15	....	....
....	....	....	1	4	50.7	14.0	....	4	....	....
56	107	87	125	b 451	b 63.9	b 13.9	9	453	3	6

[b] Not including 2 not reported.

TABLE XXV.—LITERACY AND SCHOOL ATTENDANCE OF REPRESENTA AND AGE, FOR STATE GROUPS AND FOR

MARYLAND, VIRGINIA, TENNESSEE, SOUTH CAROLINA, GEORGIA.

Sex, nativity, and age.	Total number of persons.	Persons who attended school—					
		Less than 5 months.	5 to 9 months.	10 to 19 months.	20 to 29 months.	30 to 39 months.	40 to 49 months.
MALES.							
Native of native parents (white):							
Under 11 years	3				3		
11 years	1						
12 years	10		1	2	1	1	1
13 years	17			3	1		6
Total under 14 years	31		1	5	5	1	7
14 years	27	1	2	2	3	2	5
15 years	16	2		2	1	2	4
Total under 16 years	74	3	3	9	9	5	16
Native of native parents (colored):							
Under 11 years	1					1	
11 years	1			1			
12 years	4	2				1	1
13 years	7		1	1		1	2
Total under 14 years	13	2	1	2		3	3
14 years	15	1	3		1	2	2
15 years	12			1	3		1
Total under 16 years	40	3	4	3	4	5	6
Native of foreign parents:							
Under 11 years	2			1	1		
13 years	6			1		1	1
Total under 14 years	8			2	1	1	1
14 years	4						
15 years	2					1	
Total under 16 years	14			2	1	2	1
Foreign born:							
14 years	1						
Total under 16 years	1						
All nativities:							
Under 11 years	6			1	4	1	
11 years	2			1			
12 years	14	2	1	2	1	2	2
13 years	30		1	5	1	2	9
Total under 14 years	52	2	2	9	6	5	11
14 years	47	2	5	2	4	4	7
15 years	30	2		3	4	3	5
Total under 16 years	129	6	7	14	14	12	23
FEMALES.							
Native of native parents (white):							
15 years	1						
Total under 16 years	1						
16 years	4						1
17 years	1						1
18 years	3						
19 years	1						
Total, all ages	10						2

TIVE WOMAN AND CHILD GLASS FACTORY EMPLOYEES, BY NATIVITY ALL STATES COMBINED—Continued.

MARYLAND, VIRGINIA, TENNESSEE, SOUTH CAROLINA, GEORGIA.

Persons who attended school—					Average months school attendance.	Average age at leaving school.	Persons who—			
50 to 59 months.	60 to 69 months.	70 to 79 months.	80 months and over.	Total.			Never attended school.	Can read or write English.	Can read or write other language only.	Can not read or write.
....	....	....	....	3	26.3	9.3	....	2	....	1
....	....	....	....	....	....	....	1	....	....	1
2	1	....	....	9	32.9	11.0	1	8	....	2
3	3	1	....	17	44.6	11.5	....	16	....	1
5	4	1	....	29	39.1	11.1	2	26	....	5
6	6	....	....	27	40.0	11.9	....	25	....	2
3	2	....	....	16	36.9	11.6	....	14	....	2
14	12	1	....	72	39.0	11.5	2	65	....	9
....	....	....	....	1	30.0	10.0	....	1	....	....
....	....	....	....	1	15.0	10.0	....	....	....	1
....	....	....	....	4	20.5	10.8	....	1	....	3
2	....	....	....	7	35.1	11.4	....	6	....	1
2	....	....	....	13	28.7	11.0	....	8	....	5
4	....	....	....	13	33.4	11.6	2	11	....	4
4	1	....	....	10	41.6	13.3	2	8	....	4
10	1	....	....	36	34.0	11.9	4	27	....	13
....	....	....	....	2	22.5	10.0	....	1	....	1
2	1	....	....	6	42.2	12.0	....	6	....	....
2	1	....	....	8	37.3	11.5	....	7	....	1
2	1	1	....	4	58.5	12.3	....	4	....	....
....	....	....	1	2	55.0	13.0	....	2	....	....
4	2	1	1	14	45.9	11.9	....	13	....	1
....	1	....	....	1	60.0	13.0	....	1	....	....
....	1	....	....	1	60.0	13.0	....	1	....	....
....	....	....	....	6	25.7	9.7	....	4	....	2
....	....	....	....	1	15.0	10.0	1	....	....	2
2	1	....	....	13	29.1	10.9	1	9	....	5
7	4	1	....	30	41.9	11.6	....	28	....	2
9	5	1	....	50	36.1	11.1	2	41	....	11
12	8	1	....	45	40.2	11.9	2	41	....	6
7	3	....	1	28	39.9	12.3	2	24	....	6
28	16	2	1	123	38.5	11.7	6	106	....	23
....	....	....	1	1	80.0	14.0	....	1	....	....
....	....	....	1	1	80.0	14.0	....	1	....	....
....	1	....	2	4	70.3	13.3	....	4	....	....
....	....	....	....	1	48.0	14.0	....	1	....	....
....	....	1	2	3	76.7	14.3	....	3	....	....
....	....	....	1	1	85.0	17.0	....	1	....	....
....	1	1	6	10	72.4	14.1	....	10	....	....

TABLE XXV.—LITERACY AND SCHOOL ATTENDANCE OF REPRESENTA AND AGE, FOR STATE GROUPS AND FOR

MARYLAND, VIRGINIA, TENNESSEE, SOUTH CAROLINA, GEORGIA—Conc'd.

Sex, nativity, and age.	Total number of persons.	Persons who attended school—					
		Less than 5 months.	5 to 9 months.	10 to 19 months.	20 to 29 months.	30 to 39 months.	40 to 49 months.
FEMALES—concluded.							
All nativities:							
15 years	1						
Total under 16 years	1						
16 years	4						1
17 years	1						1
18 years	3						
19 years	1						
Total, all ages	10						2

ALL STATES.

Sex, nativity, and age.	Total number of persons.	Less than 5 months.	5 to 9 months.	10 to 19 months.	20 to 29 months.	30 to 39 months.	40 to 49 months.
MALES.							
Native of native parents (white):							
Under 11 years	6			1	3	1	1
11 years	7		1			2	2
12 years	29		1	2	4	6	6
13 years	67			3	6	11	17
Total under 14 years	109		2	6	13	20	26
14 years	394	1	2	7	15	27	68
15 years	322	3	1	5	6	21	48
Total under 16 years	825	4	5	18	34	68	142
Native of native parents (colored):							
Under 11 years	2				1	1	
11 years	2			1		1	
12 years	4	2				1	1
13 years	7		1	1		1	2
Total under 14 years	15	2	1	2	1	4	3
14 years	29	1	3	1	1	6	3
15 years	26			2	3	1	5
Total under 16 years	70	3	4	5	5	11	11
Native of foreign parents:							
Under 11 years	4			1	3		
11 years	1					1	
12 years	10				2	4	3
13 years	30			3		3	6
Total under 14 years	45			4	5	8	9
14 years	321			3	11	13	43
15 years	225	1	1	3	3	9	21
Total under 16 years	591	1	1	10	19	30	73
Foreign born:							
Under 11 years	2	1					1
11 years							
12 years	1			1			
13 years	15		1	1	1	1	5
Total under 14 years	18	1	1	2	1	1	6
14 years	59		2		6	10	12
15 years	71		2	2	7	10	12
Total under 16 years	148	1	5	4	14	21	30

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[a] Not including 4 not reported.

[b] Not including 1 not reported.

TIVE WOMAN AND CHILD GLASS FACTORY EMPLOYEES, BY NATIVITY ALL STATES COMBINED—Continued.

MARYLAND, VIRGINIA, TENNESSEE, SOUTH CAROLINA, GEORGIA—Conc'd.

Persons who attended school—					Average months school attendance.	Average age at leaving school.	Persons who—			
50 to 59 months.	60 to 69 months.	70 to 79 months.	80 months and over.	Total.			Never attended school.	Can read or write English.	Can read or write other language only.	Can not read or write.
....	....	....	1	1	80.0	14.0	....	1	....	....
....	....	....	1	1	80.0	14.0	....	1	....	....
....	1	....	2	4	70.3	13.3	....	4	....	....
....	....	....	....	1	48.0	14.0	....	1	....	....
....	....	1	2	3	76.7	14.3	....	3	....	....
....	....	....	1	1	85.0	17.0	....	1	....	....
....	1	1	6	10	72.4	14.1	....	10	....	....

ALL STATES.

50 to 59 months.	60 to 69 months.	70 to 79 months.	80 months and over.	Total.	Average months school attendance.	Average age at leaving school.	Never attended school.	Can read or write English.	Can read or write other language only.	Can not read or write.
....	....	....	....	6	28.2	9.5	....	4	....	2
1	....	....	....	6	34.3	10.7	1	5	....	2
7	2	....	....	28	37.3	11.2	1	26	....	3
11	15	4	....	67	46.6	12.0	....	63	....	4
19	17	4	....	107	42.4	11.6	2	98	....	11
101	92	59	17	*a* 389	*a* 54.3	*a* 13.2	1	387	....	7
75	98	54	10	*b* 321	*b* 55.7	*b* 13.5	....	312	....	10
195	207	117	27	*c* 817	*c* 53.3	*c* 13.1	3	797	....	28
....	....	....	....	2	27.0	9.0	....	2	....	....
....	....	....	....	2	23.5	10.0	....	1	....	1
....	....	....	....	4	20.5	10.8	....	1	....	3
2	....	....	....	7	35.1	11.4	....	6	....	1
2	....	....	....	15	28.6	10.7	....	10	....	5
7	3	1	1	27	40.2	12.5	2	25	....	4
9	4	....	....	24	45.5	13.6	2	22	....	4
18	7	1	1	66	39.5	12.5	4	57	....	13
....	....	....	....	4	23.0	9.8	....	2	....	2
....	....	....	....	1	36.0	11.0	....	1	....	....
1	....	....	....	10	35.5	11.0	....	10	....	....
10	6	2	....	30	48.6	12.3	....	28	....	2
11	6	2	....	45	43.1	11.8	....	41	....	4
91	92	41	27	321	57.2	13.4	....	315	3	3
63	70	33	19	223	58.2	13.5	2	220	2	3
165	168	76	46	589	56.6	13.3	2	576	5	10
....	....	....	....	2	21.0	9.5	....	....	1	1
....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	1	18.0	9.0	....	....	1	....
5	1	....	....	15	41.1	11.7	....	13	1	1
5	1	....	....	18	37.6	11.3	....	13	3	2
9	10	5	3	57	47.6	12.8	2	43	11	5
15	13	5	1	67	46.5	12.8	4	45	20	6
29	24	10	4	142	45.8	12.6	6	101	34	13

c Not including 5 not reported.

TABLE XXV.—LITERACY AND SCHOOL ATTENDANCE OF REPRESENTA AND AGE, FOR STATE GROUPS AND FOR

ALL STATES—Continued.

Sex, nativity, and age.	Total number of persons.	Persons who attended school— Less than 5 months.	5 to 9 months.	10 to 19 months.	20 to 29 months.	30 to 39 months.	40 to 49 months.
MALES—concluded.							
All nativities:							
Under 11 years	14	1		2	7	2	2
11 years	10		1	1		4	2
12 years	44	2	1	3	6	11	10
13 years	119		2	8	7	16	30
Total under 14 years	187	3	4	14	20	33	44
14 years	803	2	7	11	33	56	126
15 years	644	4	4	12	19	41	86
Total under 16 years	1,634	9	15	37	72	130	256
FEMALES.							
Native of native parents (white):							
12 years	2						2
13 years	5					1	2
Total under 14 years	7					1	4
14 years	33			1	2	4	6
15 years	63				1	3	17
Total under 16 years	103			1	3	8	27
16 years	116			2	4	3	15
17 years	79					3	12
18 years	90			1	2	2	10
19 years	51				1	2	4
20 years	43						4
21 years	37					2	3
22 years	25			1	1		4
23 years	18				1	1	2
24 years	22					1	2
25 to 34 years	50		1		1	6	5
35 to 44 years	9		1				1
45 to 54 years	6			1	2		2
Total (white)	649		2	6	15	28	91
Native of native parents (colored):							
16 years	6			1			1
17 years	4		1				
18 years	4						2
19 years	1				1		
20 years	4				1	1	
21 years	4			2	1		
22 years	2					1	
23 years	2						1
24 years	1						
25 to 34 years	8					4	2
35 to 44 years	7					3	1
45 to 54 years	1						1
Total (colored)	44		1	3	3	9	8
Native of foreign parents:							
12 years	1						
13 years	6						1
Total under 14 years	7						1
14 years	76			1	3	9	7
15 years	94			2	2	3	12
Total under 16 years	177			3	5	12	20
16 years	120		2	2	1	3	17
17 years	85			1	1	2	9
18 years	69				1	4	4
19 years	48				1	1	9

[a] Not including 4 not reported.

[b] Not including 1 not reported.

TIVE WOMAN AND CHILD GLASS FACTORY EMPLOYEES, BY NATIVITY ALL STATES COMBINED—Continued.

ALL STATES—Continued.

Persons who attended school—					Average months school attendance.	Average age at leaving school.	Persons who—			
50 to 59 months.	60 to 69 months.	70 to 79 months.	80 months and over.	Total.			Never attended school.	Can read or write English.	Can read or write other language only.	Can not read or write.
....	....	....	....	14	25.5	9.5	....	8	1	5
1	....	....	....	9	32.1	10.6	1	7	....	3
8	2	....	....	43	34.9	11.1	1	37	1	6
28	22	6	....	119	45.7	12.0	....	110	1	8
37	24	6	....	185	41.0	11.5	2	162	3	22
208	197	106	48	[a]794	[a]54.5	[a]13.2	5	770	14	19
162	185	92	30	[b]635	[b]55.2	[b]13.4	8	599	22	23
407	406	204	78	1,614	[c]53.3	[c]13.1	15	1,531	39	46
....	....	....	....	2	43.5	12.0	....	2	....	....
2	....	....	....	5	47.2	12.6	....	5	....	....
2	....	....	....	7	46.1	12.4	....	7	....	....
10	5	4	1	33	50.7	13.1	....	33	....	....
12	13	11	6	63	57.1	13.6	....	63	....	....
24	18	15	7	103	54.3	13.4	....	103	....	....
19	31	24	18	116	60.8	13.9	....	116	....	....
10	19	20	15	79	63.6	14.2	....	79	....	....
12	29	18	15	89	62.7	14.4	1	89	....	1
10	9	6	18	50	66.7	14.8	1	51	....	....
5	12	10	12	43	69.4	14.7	....	43	....	....
8	7	6	11	37	67.6	15.0	....	37	....	....
4	6	3	6	25	63.0	15.2	....	25	....	....
3	5	4	2	18	60.5	15.0	....	18	....	....
4	3	5	7	22	68.6	14.9	....	22	....	....
7	9	9	11	49	61.6	14.6	1	50	....	....
1	1	1	4	9	68.9	14.9	....	9	....	....
....	....	....	1	6	36.3	13.0	....	6	....	....
107	149	121	127	646	62.1	14.3	3	648	....	1
1	1	2	....	6	52.0	13.8	....	6	....	....
2	1	....	....	4	43.0	13.0	....	4	....	....
....	1	....	1	4	56.3	14.0	....	4	....	....
....	....	....	....	1	26.0	13.0	....	1	....	....
1	1	....	....	4	41.3	13.0	....	4	....	....
....	....	1	....	4	32.0	10.3	....	4	....	....
....	1	....	....	2	48.0	12.0	....	2	....	....
....	1	....	....	2	52.0	15.5	....	2	....	....
....	1	....	....	1	64.0	17.0	....	1	....	....
....	1	....	....	[b]7	[b]40.0	[b]13.7	....	7	....	1
....	....	....	....	4	35.8	12.5	3	7	....	....
....	....	....	....	1	40.0	13.0	....	1	....	....
4	8	3	1	[b]40	[b]43.9	[b]13.2	3	43	....	1
1	....	....	....	1	50.0	11.0	....	1	....	....
2	3	....	....	6	56.3	12.7	....	6	....	....
3	3	....	....	7	55.4	12.4	....	7	....	....
19	23	9	5	76	55.1	13.1	....	76	....	....
20	24	22	9	94	59.7	13.3	....	93	1	....
42	50	31	14	177	57.5	13.2	....	176	1	....
16	40	18	20	120	59.8	13.7	....	116	1	3
12	24	19	15	83	63.0	13.8	2	82	2	1
14	16	14	15	[b]68	[b]63.9	[b]13.9	....	68	1	....
6	13	10	7	[b]47	[b]61.6	[b]13.9	....	47	....	1

[c] Not including 5 not reported.

TABLE XXV.—LITERACY AND SCHOOL ATTENDANCE OF REPRESENTA AND AGE, FOR STATE GROUPS AND FOR

ALL STATES—Concluded.

Sex, nativity, and age.	Total number of persons.	Persons who attended school— Less than 5 months.	5 to 9 months.	10 to 19 months.	20 to 29 months.	30 to 39 months.	40 to 49 months.
FEMALES—concluded.							
20 years	26						6
21 years	21						3
22 years	19					1	2
23 years	9						
24 years	10				1		
25 to 34 years	24				1	2	5
35 to 44 years	12				2		1
45 to 54 years	1						1
Total	621		2	7	13	25	77
Foreign born:							
14 years	12					1	3
15 years	25		1			2	3
Total under 16 years	37		1			3	6
16 years	36	1	1	2	4	4	6
17 years	33			2	1	5	5
18 years	20			1		1	3
19 years	19				3		2
20 years	26				2	4	2
21 years	12						2
22 years	14				1		1
23 years	11					1	1
24 years	5					2	1
25 to 34 years	20				1	2	2
35 to 44 years	8				2		3
45 to 54 years	3						
Total	244	1	2	5	14	22	34
All nativities:							
12 years	3						2
13 years	11					1	3
Total under 14 years	14					1	5
14 years	121			2	5	14	16
15 years	182		1	2	3	8	32
Total under 16 years	317		1	4	8	23	53
16 years	278	1	3	8	9	10	39
17 years	201		1	3	2	10	26
18 years	183			2	3	7	19
19 years	119				6	3	15
20 years	99				3	5	12
21 years	74			2	1	2	8
22 years	60			1	2	2	7
23 years	40				1	2	4
24 years	38				1	3	3
25 to 34 years	102		1		3	14	14
35 to 44 years	36		1		4	3	6
45 to 54 years	11			1	2		4
Total, all nativities	1,558	1	7	21	45	84	210

[a] Not including 2 not reported.

[b] Not including 1 not reported.

TABLE XXVI.—LITERACY AND SCHOOL ATTENDANCE OF WORKERS IN GLASS FACTORY FAMILIES.

This table shows for each State for the woman and child workers in glass factory families from whom detailed reports were secured the facts as to school attendance for those able to read and write and

TIVE WOMAN AND CHILD GLASS FACTORY EMPLOYEES, BY NATIVITY ALL STATES COMBINED—Concluded.

ALL STATES—Concluded.

Persons who attended school—					Average months school attendance.	Average age at leaving school.	Persons who—			
50 to 59 months.	60 to 69 months.	70 to 79 months.	80 months and over.	Total.			Never attended school.	Can read or write English.	Can read or write other language only.	Can not read or write.
2	7	6	5	26	64.1	13.9	....	26	....	....
4	2	5	7	21	67.4	14.6	....	21	....	....
1	6	4	5	19	66.7	13.8	....	19	....	....
1	2	2	4	9	72.1	14.0	....	9	....	....
....	4	2	3	10	66.8	14.3	....	10	....	....
1	3	6	6	24	62.7	14.0	....	24	....	....
2	2	1	3	11	57.8	14.1	1	12	....	....
....	....	....	....	1	40.0	11.0	....	1	....	....
101	169	118	104	a 616	a 61.2	a 13.7	3	611	5	5
3	5	....	....	12	52.0	13.3	....	10	2	....
3	11	1	4	25	58.6	13.2	....	23	2	....
6	16	1	4	37	56.5	13.2	....	33	4	....
4	9	4	1	36	46.4	12.7	....	29	6	1
6	5	3	4	31	52.2	13.1	2	19	14	....
5	6	1	1	18	54.1	13.1	2	12	7	1
2	4	3	2	16	55.7	14.2	3	9	9	1
5	4	2	3	b 22	b 52.7	b 13.1	3	20	4	2
2	2	2	1	9	58.9	13.4	3	9	....	3
3	2	1	4	12	63.3	13.7	2	10	2	2
3	3	2	1	11	59.7	13.6	....	10	1	....
....	....	....	1	b 4	b 51.0	b 13.5	....	5	....	....
2	3	4	....	14	53.6	13.2	6	13	3	4
1	....	....	....	6	38.3	11.0	2	6	1	1
1	....	....	....	a 1	a 54.0	a 13.0	....	2	1	....
40	54	23	22	c 217	c 53.4	c 13.2	23	177	52	15
1	....	....	....	3	45.7	11.7	....	3	....	....
4	3	....	....	11	52.2	12.7	....	11	....	....
5	3	....	....	14	50.8	12.4	....	14	....	....
32	33	13	6	121	53.6	13.1	....	119	2	....
35	48	34	19	182	58.7	13.4	....	179	3	....
72	84	47	25	317	56.3	13.3	....	312	5	....
40	81	48	39	278	58.3	13.6	....	267	7	4
30	49	42	34	197	61.1	13.8	4	184	16	1
31	52	33	32	b 179	b 62.1	b 14.1	3	173	8	2
18	26	19	27	b 114	b 62.7	b 14.3	4	108	9	2
13	24	18	20	b 95	b 62.9	b 14.0	3	93	4	2
14	11	14	19	71	64.4	14.4	3	71	....	3
8	15	8	15	58	63.8	14.3	2	56	2	2
7	11	8	7	40	62.5	14.4	....	39	1	....
4	8	7	11	b 37	b 66.1	b 14.7	....	38	....	....
10	16	19	17	b 94	b 59.1	b 14.1	7	94	3	5
4	3	2	7	30	54.3	13.5	6	34	1	1
1	....	....	1	a 9	a 39.1	a 12.7	....	10	1	....
252	380	265	254	d 1,519	d 60.0	d 13.8	32	1,479	57	22

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c Not including 4 not reported.

d Not including 7 not reported.

also for those unable to read and write. The persons in the table are grouped as "children under 14 years," "children 14 and 15 years," and "women 16 years and over." The selection of the representative families and the securing of the detailed data upon which this table is based are fully explained in connection with Table XXVII.

An examination of that part of the table relating to Pennsylvania, for example, shows that 55 children under 14 years of age at work were reported, and data in regard to literacy were secured for all of them. Of these 55 children all were reported able to read and write, and the average school attendance as given for all except two of them was 49.6 months. Of the 750 children 14 and 15 years of age, data as to literacy were secured for 711, 5 of whom were unable to read and write, these 5 persons having attended school an average of 26.6 months. The 706 persons, constituting 99.3 per cent of all persons reporting, who were able to read and write, attended school an average of 54.8 months. Of the 498 women 16 years of age and over, data as to literacy were secured for 411, 5 of whom were unable to read and write. Two of these persons had never attended school, and 3 had attended an average of 12.7 months. The 406 who were reported as able to read and write had attended school an average of 57 months. The facts for the other States may be read in like manner.

TABLE XXVI.—LITERACY AND SCHOOL ATTENDANCE OF REPRESENTATIVE WOMAN AND CHILD WORKERS IN GLASS FACTORY FAMILIES, BY AGE GROUPS, FOR EACH STATE.

[Married women are not included in this table.]

State and age groups.	Total number.	Number reporting as to illiteracy and school attendance.	Persons unable to read and write.					Persons able to read and write.		
			Number.	Per cent of those reporting.	Persons who never attended school.	Persons who attended school.		Number.	Per cent of those reporting.	Average months school attendance.
						Number.	Average months attendance.			
NEW YORK.										
Children under 14 years	1	1						1	100.0	55.0
Children 14 and 15 years	50	50						50	100.0	71.5
Women 16 years and over	62	62						62	100.0	78.6
NEW JERSEY.										
Children under 14 years	17	17	1	5.9		1	18.0	16	94.1	47.2
Children 14 and 15 years	137	137	7	5.1	2	5	37.0	130	94.9	54.7
Women 16 years and over	82	82						82	100.0	67.1
PENNSYLVANIA.										
Children under 14 years	55	55						55	100.0	[a] 49.6
Children 14 and 15 years	750	711	5	.7		5	26.6	706	99.3	54.8
Women 16 years and over	498	411	5	1.2	2	3	12.7	406	98.8	57.0
OHIO.										
Children under 14 years	4	4						4	100.0	53.5
Children 14 and 15 years	182	181	4	2.2		4	40.8	177	97.8	61.0
Women 16 years and over	168	168	1	.6	1			167	99.4	70.0
INDIANA.										
Children under 14 years										
Children 14 and 15 years	114	114						114	100.0	[b] 56.1
Women 16 years and over	49	49						49	100.0	[c] 60.5

[a] Not including 2, school attendance not reported.
[b] Not including 1, school attendance not reported.
[c] Not including 3, school attendance not reported.

TABLE XXVI.—LITERACY AND SCHOOL ATTENDANCE OF REPRESENTATIVE WOMAN AND CHILD WORKERS IN GLASS FACTORY FAMILIES, BY AGE GROUPS, FOR EACH STATE—Concluded.

State and age groups.	Total number.	Number reporting as to illiteracy and school attendance.	Persons unable to read and write.					Persons able to read and write.		
			Number.	Per cent of those reporting.	Persons who never attended school.	Persons who attended school.		Number.	Per cent of those reporting.	Average months school attendance.
						Number.	Average months attendance.			
ILLINOIS.										
Children under 14 years	......	......	......	......	......	......	......	......	......	......
Children 14 and 15 years	114	114	1	0.9	......	1	27.0	113	99.1	64.8
Women 16 years and over	115	115	1	.9	1	......	......	114	99.1	64.1
WISCONSIN.										
Children under 14 years	......	......	......	......	......	......	......	......	......	......
Children 14 and 15 years	46	46	......	......	......	......	......	46	100.0	56.8
Women 16 years and over	16	15	......	......	......	......	......	15	100.0	[a] 62.8
MISSOURI.										
Children under 14 years	2	2	......	......	......	......	......	2	100.0	55.0
Children 14 and 15 years	14	14	1	7.1	......	1	50.0	13	92.9	53.7
Women 16 years and over	5	5	1	20.0	......	1	30.0	4	80.0	37.5
WEST VIRGINIA.										
Children under 14 years	70	70	10	14.3	......	10	19.6	60	85.7	[b] 41.4
Children 14 and 15 years	220	219	12	5.5	1	11	23.4	207	94.5	[c] 51.4
Women 16 years and over	194	191	6	3.1	1	5	13.8	185	96.9	[d] 60.4
MARYLAND.										
Children under 14 years	20	20	3	15.0	......	3	21.7	17	85.0	49.2
Children 14 and 15 years	31	31	1	3.2	......	1	56.0	30	96.8	53.1
Women 16 years and over	26	26	1	3.8	1	......	......	25	96.2	62.2
VIRGINIA.										
Children under 14 years	16	16	6	37.5	2	4	21.0	10	62.5	29.5
Children 14 and 15 years	22	22	6	27.3	2	4	6.8	16	72.7	42.8
Women 16 years and over	14	14	2	14.3	2	......	......	12	85.7	[e] 35.4
TENNESSEE.										
Children under 14 years	3	3	1	33.3	......	1	6.0	2	66.7	47.5
Children 14 and 15 years	9	9	1	11.1	......	1	6.0	8	88.9	30.0
Women 16 years and over	5	5	......	......	......	......	......	5	100.0	47.2
SOUTH CAROLINA.										
Children under 14 years	4	4	1	25.0	......	1	3.0	3	75.0	42.0
Children 14 and 15 years	3	3	2	66.7	1	1	9.0	1	33.1	49.0
Women 16 years and over	......	......	......	......	......	......	......	......	......	......
GEORGIA.										
Children under 14 years	5	5	2	40.0	......	2	13.5	3	60.0	43.0
Children 14 and 15 years	4	4	......	......	......	......	......	4	100.0	63.0
Women 16 years and over	1	1	......	......	......	......	......	1	100.0	70.0

[a] Not including 3, school attendance not reported.
[b] Not including 1, school attendance not reported.
[c] Not including 5, school attendance not reported.
[d] Not including 4, school attendance not reported.
[e] Not including 2, school attendance not reported.

TABLE XXVII.—CHILDREN UNDER 16 AT WORK AND ECONOMIC CONDITION OF THEIR FAMILIES, IN DETAIL.

In this table is presented full information in detail for all children in regard to whom individual data were secured in the home. Most of these are typical children of the specified ages employed in the glass factories investigated. A very few, however, although members of the same families, were employed in other industries. The factory was the starting point of this investigation. There first was secured from the pay roll of the establishment a complete list of the woman and child employees and those male employees 16 years of age and over who worked in occupations where any women or children were also engaged. With this list were secured the occupation, sex, age, race, and place of birth, and for a pay-roll period the hours worked and the actual earnings. The pay-roll period selected was, as a rule, the one just prior to the investigation by the agent of the Bureau. Care was taken, however, that it should be a period when the establishment was working full time and approximately the normal number of employees were at work. Wherever certificates or other evidences of the ages of the children were on file at the factory, they were examined for verification of ages. In cases where it appeared to the agent that the ages reported by the factory officials or by the children or as stated in the certificates were not correct, inquiry was made in the home, and documentary evidence, if there existing, was examined, and the ages as reported were corrected if the evidence was conclusive. In other cases examination was also made of school or birth records, where such were available, as furnishing evidence of the child's age. If no evidence was found or if it was of a doubtful character, ages were accepted and reported as given by the child, the factory officials, or the parent, as the case might be.

From the list of employees as taken from the pay roll, the names of a certain number of typical woman and child employees of various ages were selected and visits made to the homes. There was secured upon schedules detailed information in regard to the individual workers and their families. In getting this information in the homes, an endeavor was made to secure schedules representing all the children under 16 employed in the factories investigated, and also for one-third of the woman workers. In a few cases, however, establishments were investigated for the woman and child employees of which, on account of lack of time, no schedules were secured. A sufficient number of schedules were secured, however, to fully represent the home conditions of woman and child workers in the glass industry.

The information secured in the homes enabled the agents to verify several of the items obtained in the factory and to secure additional data, a part of which are shown in this table.

The basis of this table is a child under 16 years of age at work, with his or her family. The children (with their families) are arranged in the order of age, beginning with the youngest. The older brothers and sisters under 16 years of age, if any were at work, follow in the order of age. The facts given for each child and family relate to the father, the child, the membership of the family, and the income of the family during the past year. Beginning with the second column of the table, there is given for the father the race and whether native or foreign born. This is followed in the next column by the number of years in the United States in the case of the foreign-born, or, if the father is dead, the number of years since he came to the United States. For the child the information given in order is the sex, the age (as verified if possible for the younger children), the occupation, the industry if other than the glass industry, the reported number of days worked and the reported earnings during the past year, the months since beginning work, whether the child could read or write any language, and the months of school attendance. The days worked and the earnings as given here are as secured in the home by careful questioning of members of the family. With a knowledge of the occupation, the age, the usual earnings of the occupation, and the earnings of the individual during a recent period, the employee was asked to give the agent estimates of the days worked during the past year and the earnings. Great care was used in questioning to see that due allowance was made for changes in rates of wages during the year, for time lost either by sickness, irregularity of the employee, or a reduction of time or of the force in the establishment. As a result of this careful questioning, reports were secured as accurate probably as it is possible to secure in the absence of detailed records. They are, however, necessarily only approximate, sometimes with a considerable error in the case of the individual, but probably very close to the facts on the average. The probability of error in these figures is discussed in detail on page 508.

Under the membership of the family are given the occupation or condition of the father, a statement of the condition of the mother, whether at home, at work as a wage-earner, or dead, the number of children of specified ages living in the family, the total membership of the family, and the total wage-earners in the family. The total members of the family and the total wage-earners include only the members of the natural family, boarders and lodgers, if any, not being included.

Under income of family during the past year are given the earnings of the father, the mother, the children under 14 years of age, the children 14 and 15, the children of 16 years and over, the income from other sources, and the total earnings and income. In addition, the amount of the earnings retained by the children 16 years of age and over (that is, not turned into the family fund) is also given. The income from other sources includes all income other than from earnings. The income from the keeping of boarders and lodgers is an important item. The amount entered as the income from boarders and lodgers is not the gross amount paid in by boarders and lodgers, but one-half that amount in the case of lodgers and one-fifth in the case of boarders or boarders and lodgers, which is estimated to be a fair average of the profit in such cases. In some cases there was income from property owned. Other sources of income were garden, poultry, etc. In rare cases income was also found from the sale of property or from insurance; in such cases the actual source of the income and the amount are always noted.

In regard to all these items of income and earnings, it should be said that they are only approximate, and the explanation made in regard to the earnings of the child applies here as well.

Following the amount of earnings retained by children 16 years of age and over during the past year is a column showing the amount expended for rent during the past year. In those cases where the family owned its own home, this fact is indicated by the abbreviation O. H. The table concludes with two columns showing, respectively, the per capita weekly income less the earnings of children under 16 and of children under 14.

In order that the form of the table may be clearly understood, the following example is given, using the first family of the table: In the first line of the table the first child given is a female 13 years of age, the child of a South Italian father who was of foreign birth, as indicated by the letter "F" in the column showing race and nativity. It is 15 years since the father came to the United States. The occupation of the child was as a hemmer in a clothing shop. During the past year she worked 156 days, earning $52, and she had been at work altogether 12 months. She was able to read and write, and had attended school 55 months. In addition to this column, as will appear on the second line of the table, there was a boy 14 years of age at work as a clean-off in a glass factory. He had worked 24 days during the past year and earned $16. He had been at work only 1 month, was able to read and write, and had attended school 68 months. Under the membership of the family of these children, it appears that the father was a laborer and the mother was at work; there were two children between the ages of 10 to 13, inclusive, one 14 or 15, and one 16 or over, the total membership of the family being 6, and the number of wage-earners 5. As to income and earnings of the family during the past year, the table shows that the father earned $250, the mother $125, children under 14 (in this case the girl 13 years of age) $52, children 14 or 15 (the 14-year-old boy) $16, and children 16 or over earned $75, making a total of income and earnings for the past year of $518, there being no income from other sources. The rent paid by the family during the year was $132. The per capita weekly income for the year of the family, less the earnings of the children under 14, was $1.49. The facts for each of the children and their families may be seen from a study of this table, following out the items in like manner.

TABLE XXVII.—CHILDREN UNDER 16 YEARS OF AGE AT WORK: AGE, DITION OF THE CHILD AND THE FAMILY,

NEW YORK.

Family number.	The father.		The child.								Membership of family.	
											Occupation or condition of—	
	Race and nativity.	Yrs. in U. S.	Sex.	Age.	Occupation or industry.	Days worked past year.	Earnings past year.	Mos. since beginning work.	Can read and write.	Mos. school attendance.	Father.	Mother.
1	Italian, F	15	F.	13	Hemmer, clothing.	156	$52	12	Yes.	55	Laborer	Work
			M.	14	Clean-off	24	16	1	Yes.	68		
2	German, N		M.	14	Clean-off	36	27	24	Yes.	80	Buttonhole maker.	Home
3	German, N		M.	14	Clean-off	26	18	1	Yes.	75	Tinner	Home
4	Irish, N		M.	14	Carry-over	192	192	10	Yes.	80	Blower	Home
5	French, F	17	M.	14	Snap-up	264	198	12	Yes.	63	Laborer	Home
6	German, F	24	M.	14	Water boy	96	72	4	Yes.	72	Dead	Home
7	German, F	20	M.	14	Carry-in	26	14	1	Yes.	80	Painter	Home
8	German, F	24	M.	14	Clean-off	26	15	1	Yes.	80	Dead	Home
9	German, F	21	M.	14	Water boy	120	80	5	Yes.	72	Laborer	Home
10	Italian, F	25	M.	14	Crimper	96	88	17	Yes.	75	Dead	Home
11	Polish, F	17	M.	14	Snap-up	96	64	5	Yes.	73	Liquorman, tannery.	Home
12	Slav, F	28	M.	14	Spare boy	120	70	5	Yes.	50	Farmer	Home
13	Slovak, F	24	M.	14	Carry-in	26	16	1	Yes.	65	Helper, produce.	Home
14	German, F	35	F.	14	Messenger, car shop.	72	54	3	Yes.	74	Repairer, car.	Home
15	Slovak, F	25	F.	14	Wrapper	253	140	12	Yes.	88	Laborer	Home
16	American		M.	15	Take-out	192	128	14	Yes.	70	Laborer	Home
17	American		M.	15	Coverer, demijohns.	240	120	12	Yes.	72	Coverer, demijohn.	Home
18	American		M.	15	Roustabout.	192	160	10	Yes.	72	Deserter	Home
19	American		M.	15	Snap-up	156	108	6	Yes.	72	Clerk	Home
20	American		M.	15	Snap-up	168	126	7	Yes.	72	Boarding house kpr.	Home
21	German, N		M.	15	Spare boy	48	36	2	Yes.	72	Dead	Work
22	German, N		M.	15	Snap-up	257	168	10	Yes.	60	Stableman.	Home
23	Irish, N		M.	15	Carry-in	264	220	18	Yes.	72	Blower	Home
24	Polish, N		M.	15	Carry-in	264	176	12	Yes.	75	Watchman	Home
25	French, F	18	M.	15	Water boy	264	132	12	Yes.	54	Baker	Home
26	German, F	25	M.	15	Errand boy, dept. store.	300	150	12	Yes.	80	Laborer	Home
27	German, F	48	M.	15	Mold boy	260	240	12	Yes.	80	Dead	Home
28	German, F	23	M.	15	Snap-up	130	84	5	Yes.	72	Dead	Home
29	German, F	21	M.	15	Machine boy	264	208	12	Yes.	72	Dead	Home
30	German, F	20	M.	15	Machine boy	240	180	9	Yes.	72	Laborer	Home
31	German, F	36	M.	15	Crimper	260	220	12	Yes.	80	Incapac	Work
32	Irish, F	30	M.	15	Take-out	276	164	12	Yes.	70	Carpenter	Home
33	Italian, F	30	M.	15	Snap-up	264	198	17	Yes.	63	Away	Home
34	Italian, F	5	M.	15	Carry-in	300	235	60	Yes.	30	Laborer	Home
35	Italian, F	15	M.	15	Snap-up	264	198	24	Yes.	63	Section-hand.	Home
36	Italian, F	23	M.	15	Mold boy	96	72	4	Yes.	72	Foreman section hands.	Home
37	English, F	22	M.	15	Clean-off	155	104	8	Yes.	80	Blacksmith	Home
38	Polish, F	17	M.	15	Snap-up	264	220	12	Yes.	72	Laborer	Home
39	Polish, F	20	M.	15	Snap-up	264	220	12	Yes.	72	Press work.	Home
40	American		F.	15	Coverer, demijohns.	180	178	18	Yes.	81	Dead	Home
41	American		F.	15	Grinder	294	220	15	Yes.	60	Gas maker.	Home
42	French, F	35	F.	15	Coverer, demijohns.	120	66	8	Yes.	81	Blacksmith	Home
43	German, F	(b)	F.	15	Coverer, demijohns.	144	108	10	Yes.	72	Cabinet maker.	Home
			F.	15	Coverer, demijohns.	144	108	10	Yes.	72		
44	Hebrew, F	18	F.	15	Transferer	230	114	11	Yes.	93	Printer	Home

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[a] Amount received from sale of house.

OCCUPATION, AND EDUCATION OF THE CHILD, AND ECONOMIC CON- IN DETAIL, FOR EACH STATE.

NEW YORK.

Membership of family.						Income of family past year.						Total earnings and income past year.	Am't retained by children 16 years and over.	Rent past year.	Per capita weekly income of family less earnings of children.		Family number.
Children of ages—				Total.	Total wage earners.	Earnings of—					Other.						
						Father.	Mother.	Children—							Under 16.	Under 14.	
Under 10.	10 to 13.	14 and 15.	16 and over.					Under 14.	14 and 15.	16 and over.							
...	2	1	1	6	5	$250	$125	$52	$16	$75	...	$518	...	$132	$1.44	$1.49	1
2	1	1	2	8	4	440	...	...	27	466	...	933	...	108	2.18	...	2
3	1	1	...	7	2	420	...	...	18	...	...	438	...	156	1.15	...	3
1	2	1	2	8	2	1,750	...	...	192	...	$792	2,734	...	O. H.	6.11	...	4
3	3	1	2	11	3	624	...	...	198	346	50	1,218	$173	144	1.78	...	5
...	2	1	1	5	2	...	...	...	72	840	100	1,012	540	120	3.62	...	6
1	1	1	1	6	2	630	...	...	14	...	...	644	...	120	2.02	...	7
...	...	1	3	5	4	...	...	...	15	1,200	...	1,215	...	156	4.62	...	8
2	1	1	2	8	4	500	...	...	80	443	...	1,023	...	O. H.	2.27	...	9
...	...	1	2	4	3	...	...	...	88	1,080	...	1,168	...	120	5.19	...	10
2	1	1	2	8	4	480	...	...	64	730	...	1,274	...	84	2.91	...	11
1	1	2	2	8	4	200	...	...	70	696	...	966	...	O. H.	2.15	...	12
1	...	1	2	6	4	459	...	...	16	431	...	906	...	132	2.85	...	13
...	1	1	2	6	4	618	...	...	54	416	192	1,280	144	O. H.	3.93	...	14
...	2	1	3	8	4	219	...	...	140	480	24	863	...	O. H.	1.74	...	15
...	1	1	3	7	5	247	...	...	128	1,050	...	1,425	257	144	3.56	...	16
3	2	1	...	8	2	480	...	...	120	...	...	600	...	120	1.15	...	17
...	...	1	4	6	5	...	...	...	160	980	...	1,140	...	24	3.14	...	18
...	...	1	1	4	3	520	...	...	108	200	...	828	...	84	3.46	...	19
1	...	1	...	4	2	632	...	...	126	...	50	808	...	300	3.28	...	20
1	...	1	1	4	3	...	40	...	36	210	123	409	...	84	1.79	...	21
4	1	1	...	8	2	536	...	...	168	...	609	1,313	...	132	2.75	...	22
4	2	2	...	10	2	1,452	...	...	220	...	...	1,672	...	O. H.	2.79	...	23
3	...	1	...	6	2	500	...	...	176	...	...	676	...	108	1.60	...	24
1	...	1	...	4	2	676	...	...	132	...	[a]700	1,508	...	72	6.62	...	25
...	1	1	2	6	4	448	...	...	150	544	...	1,142	258	O. H.	3.18	...	26
...	1	1	4	7	5	...	...	...	240	1,296	...	1,536	532	144	3.56	...	27
...	...	1	1	3	2	...	...	...	84	418	...	502	...	O. H.	2.68	...	28
...	1	2	2	6	3	...	...	...	208	343	21	572	...	O. H.	1.17	...	29
...	2	2	1	7	3	288	...	...	180	220	65	753	...	O. H.	1.57	...	30
...	...	1	...	3	2	...	600	...	220	...	192	1,012	...	O. H.	5.08	...	31
...	1	1	3	7	5	306	...	...	164	1,170	288	1,928	...	O. H.	4.85	...	32
3	2	1	...	7	1	...	...	...	198	...	100	298	...	120	.27	...	33
1	1	1	...	5	2	320	...	...	235	...	...	555	...	72	1.23	...	34
2	...	1	1	6	3	520	...	...	198	308	312	1,338	...	O. H.	3.65	...	35
1	2	1	...	6	2	780	...	...	72	...	...	852	...	24	2.50	...	36
...	...	1	1	4	3	1,077	...	...	104	165	...	1,346	...	180	5.97	...	37
...	...	1	1	4	3	432	...	...	220	154	60	866	...	O. H.	3.11	...	38
5	1	2	...	10	2	780	...	...	220	...	5	1,005	...	O. H.	1.51	...	39
...	...	1	1	3	2	...	...	...	178	375	...	533	115	96	2.40	...	40
1	1	1	1	6	3	735	...	...	220	675	...	1,630	519	120	4.52	...	41
1	4	1	...	8	2	875	...	...	66	...	...	941	...	O. H.	2.10	...	42
1	...	2	2	7	5	378	...	...	216	246	198	1,038	...	O. H.	2.26	...	43
2	2	1	...	7	2	315	...	...	114	...	19	448	...	120	.92	...	44

[a] Not reported.

TABLE XXVII.—CHILDREN UNDER 16 YEARS OF AGE AT WORK: AGE, DITION OF THE CHILD AND THE FAMILY, IN

NEW YORK—Concluded.

Family number.	The father.		The child.								Membership of family. Occupation or condition of—	
	Race and nativity.	Yrs. in U.S.	Sex.	Age.	Occupation or industry.	Days worked past year.	Earnings past year.	Mos. since beginning work.	Can read and write.	Mos. school attendance.	Father.	Mother.
45	Polish, F....	20	F.	15	Coverer, demijohns.	156	$119	9	Yes.	72	Galvanizer.	Home
46	Polish, F....	20	F.	15	Transferer...	204	132	10	Yes.	78	Fireman...	Home
47	Polish, F....	18	F.	15	Transferer...	262	141	17	Yes.	68	Carpenter..	Work
48	Polish, F....	4	F.	15	Coverer, demijohns.	78	46	5	Yes.	64	Galvanizer.	Home
49	Polish, F....	19	F.	15	Coverer, demijohns.	144	144	8	Yes.	72	Carpenter..	Home

NEW JERSEY.

Family number.	Race and nativity.	Yrs. in U.S.	Sex.	Age.	Occupation or industry.	Days worked past year.	Earnings past year.	Mos. since beginning work.	Can read and write.	Mos. school attendance.	Father.	Mother.
1	American...	....	M.	11	Stick-up....	50	32	4	Yes.	30	Dead.......	Work
			F.	15	Chipper.....	225	150	21	Yes.	30		
2	Polish, F....	21	M.	12	Sortier.......	48	36	2	Yes.	54	Laborer....	Home
3	American...	....	M.	12	Spare-boy...	240	180	19	Yes.	41	Laborer..	Home
			M.	14	Snap-up....	240	180	19	Yes.	54		
4	American...	....	M.	12	Carry-up....	96	62	7	Yes.	45	Laborer....	Home
			M.	14	Snap-up....	120	90	7	Yes.	54		
			M.	15	Spare-boy...	168	126	37	Yes.	45		
5	American...	.....	M.	13	Mold boy...	240	180	10	Yes.	63	Elevator man.	Home
6	American...	.....	M.	13	Carry-in.....	240	168	18	Yes.	36	Laborer....	Home
7	American...	.....	M.	13	Stick-up....	75	63	8	Yes.	35	Deserter...	Work
8	American...	.....	M.	13	Carry-in....	240	156	10	Yes.	63	Deserter...	Work
9	Irish, N.....	.....	M.	13	Carry-in....	240	180	18	Yes.	45	Dead.......	Work
10	English, F..	24	M.	13	Carry-in....	48	58	2	Yes.	72	Shearer....	Home
11	Irish, F.....	25	M.	13	Carry-in....	144	108	12	Yes.	60	Gateman...	Home
12	American...	....	M.	13	Sorter.......	192	144	12	Yes.	36	Dead......	Work
			M.	15	Mold boy...	144	122	72	Yes.	36		
13	American...	....	M.	13	Snap-up....	216	162	10	Yes.	54	Laborer....	Home
			M.	15	Snap-up....	262	242	14	es.Y	54		
14	American...	....	M.	13	Stick-up....	150	127	12	Yes.	40	Packer.....	Home
			M.	15	Clerk, dry goods.	250	215	24	Yes.	50		
15	Irish, N.....	....	M.	13	Carry-in.....	216	112	9	Yes.	36	Laborer....	Dead
			M.	15	Snap-up....	240	204	36	Yes.	27		
16	Irish, F.....	(b)	M.	13	Water carrier.	168	109	10	No..	18	Dead.......	Work
			M.	15	Mold boy...	240	204	72	No..	18		
17	Italian, F...	20	M.	13	Stick-up....	175	87	8	Yes.	45	Carry-in....	Home
			M.	15	Carry-in.....	225	148	48	Yes.	35		
18	American...	.....	M.	14	Mold boy...	216	184	9	Yes.	72	Cotton engineer.	Home
19	American...	.....	M.	14	Spare boy...	40	30	10	Yes.	72	Laborer....	Home
20	American...	.....	M.	14	Blower's helper.	240	168	24	Yes.	54	Incapac....	Home
21	American...	.....	M.	14	Snap-up....	240	240	60	Yes.	36	Laborer....	Home
22	American...	.....	M.	14	Snap-up....	288	212	12	No..	48	Deserter...	Home
23	American...	.....	M.	14	Carry-in.....	240	204	20	Yes.	63	Laborer....	Home
24	American...	.....	M.	14	Mold boy...	216	162	9	Yes.	54	Laborer....	Home
25	American...	.....	M.	14	Carry-in.....	48	36	6	Yes.	72	Blower.....	Home
26	American...	.....	M.	14	Mold boy...	228	194	18	No..	81	Laborer....	Home
27	American...	.....	M.	14	Snap-up....	96	82	6	Yes.	54	Deserter....	Home
28	American...	.....	M.	14	Mold boy...	240	204	10	Yes.	72	Laborer....	Home
29	American...	.....	M.	14	Snap-up....	240	204	17	Yes.	54	Laborer....	Home
30	American...	.....	M.	14	Carry-in.....	228	194	10	Yes.	72	Packer.....	Home
31	American...	.....	M.	14	Carry-in.....	168	116	9	Yes.	54	Deserter ...	Home
32	American...	.....	M.	14	Clean-off....	240	204	24	Yes.	54	Blower.....	Home
33	American...	.....	M.	14	Stick-up....	48	36	2	Yes.	72	Gas maker.	Home
34	American...	.....	M.	14	Stick-up....	120	102	5	Yes.	63	Grocer.....	Home

[a] Including 1 other member.

OCCUPATION, AND EDUCATION OF THE CHILD, AND ECONOMIC CONDETAIL, FOR EACH STATE—Continued.

NEW YORK—Concluded.

Membership of family.						Income of family past year.						Total earnings and income past year.	Am't retained by children 16 years and over.	Rent past year.	Per capita weekly income of family less earnings of children.		Family number.
Children of ages—				Total.	Total wage earners.	Earnings of—					Other.						
						Father.	Mother.	Children—									
Under 10.	10 to 13.	14 and 15.	16 and over.					Under 14.	14 and 15.	16 and over.					Under 16.	Under 14.	
3	3	1	2	11	4	$367	......	....	$119	$424	......	$910	......	O. H.	$1.38	......	45
3	2	1	.....	8	2	962	......	....	132	......	......	1,094	......	$108	2.31	......	46
....	2	1	.....	5	3	308	$128	....	141	......	......	577	......	144	1.68	......	47
3	2	1	.....	8	2	480	......	....	46	......	......	526	......	O. H.	1.15	......	48
1	...	1	1	5	3	360	......	....	144	216	......	720	......	O. H.	2.22	......	49

NEW JERSEY.

Under 10.	10 to 13.	14 and 15.	16 and over.	Total.	Total wage earners.	Father.	Mother.	Children under 14.	Children 14 and 15.	Children 16 and over.	Other.	Total earnings and income past year.	Am't retained by children 16 years and over.	Rent past year.	Under 16.	Under 14.	Family number.
2	1	1	1	6	4	......	$40	$32	$150	$200	$3	$425	......	$104	$0.78	$1.26	1
4	1	....	2	9	4	$412	......	36	.....	338	......	786	......	81	1.60	1.60	2
....	1	1	.....	4	3	515	......	180	180	......	26	901	......	108	2.60	3.47	3
1	1	2	2	8	6	252	......	62	216	248	24	802	......	108	1.26	1.78	4
1	1	....	3	7	5	375	......	180	.....	1,242	......	1,797	$636	108	4.44	4.44	5
1	1	....	.....	4	2	441	......	168	.....	......	8	617	......	72	2.16	2.16	6
1	1	....	2	5	3	......	150	63	.....	300	......	513	......	84	1.73	1.73	7
....	2	1	.....	4	2	......	72	156	.....	......	......	228	......	84	.35	.35	8
....	1	....	1	3	3	......	352	180	.....	182	......	714	......	48	3.42	3.42	9
3	1	....	1	7	3	707	......	58	.....	175	128	1,068	......	O. H.	2.77	2.77	10
1	2	....	2	7	4	536	......	108	.....	420	......	1,064	......	96	2.63	2.68	11
1	1	1	1	5	4	......	52	144	122	252	......	570	......	36	1.17	1.64	12
3	2	1	1	9	3	420	......	162	242	......	......	824	......	120	.90	1.41	13
1	1	1	.....	5	3	385	......	127	215	......	58	785	......	84	1.70	2.53	14
1	2	1	.....	a 6	3	360	......	112	204	......	......	676	......	O. H.	1.15	1.81	15
....	2	1	.....	4	3	......	100	109	204	......	......	413	......	65	.48	1.46	16
....	1	1	.....	4	3	225	......	87	148	......	5	465	......	O. H.	1.11	1.82	17
2	...	2	1	7	3	768	......	....	184	205	......	1,157	......	O. H.	2.67	......	18
2	1	1	3	9	5	735	......	....	30	748	......	1,513	222	132	3.17	......	19
....	...	1	.....	3	1	......	......	....	168	......	312	480	......	O. H.	2.00	......	20
3	1	1	1	8	3	396	......	....	240	240	......	876	84	60	1.53	......	21
3	...	1	.....	5	1	......	......	....	212	......	......	212	......	67	......	......	22
1	1	1	3	8	4	450	......	....	204	762	125	1,541	302	O. H.	3.21	......	23
....	2	1	5	10	6	360	......	....	162	928	......	1,450	......	O. H.	2.48	......	24
2	1	1	1	7	3	1,176	......	....	36	520	......	1,732	......	O. H.	4.66	......	25
3	1	1	2	9	4	456	......	....	194	516	35	1,201	......	O. H.	2.15	......	26
....	...	1	1	3	1	......	......	....	82	......	340	422	......	O. H.	2.18	......	27
....	1	1	1	5	3	408	......	....	204	276	2	890	......	101	2.64	......	28
1	1	1	1	6	3	375	......	....	204	84	......	663	......	60	1.47	......	29
2	1	1	3	9	5	494	......	....	194	1,274	......	1,962	230	O. H.	3.78	......	30
1	2	1	1	6	2	......	......	....	116	120	......	236	......	72	.38	......	31
1	1	1	3	8	5	1,200	......	....	204	1,860	......	3,264	988	O. H.	7.36	......	32
3	1	1	.....	7	2	723	......	....	36	......	42	801	......	O. H.	2.10	......	33
....	1	1	.....	a 5	2	900	......	....	102	......	288	1,290	......	O. H.	4.57	......	34

b Not reported.

TABLE XXVII.— CHILDREN UNDER 16 YEARS OF AGE AT WORK: AGE, DITION OF THE CHILD AND THE FAMILY, IN

NEW JERSEY—Continued.

Family number.	The father.		The child.								Membership of family.	
											Occupation or condition of—	
	Race and nativity.	Yrs. in U. S.	Sex.	Age.	Occupation or industry.	Days worked past year.	Earnings past year.	Mos. since beginning work.	Can read and write.	Mos. school attendance.	Father.	Mother.
35	American	.....	M.	14	Stick-up	216	$216	9	Yes.	54	Leersman	Home
36	American	.....	M.	14	Stick-up	240	240	10	Yes.	36	Laborer	Home
37	American	.....	M.	14	Carry-in	168	143	7	Yes.	54	Chemist helper.	Home
38	American	.....	M.	14	Stick-up	240	204	10	Yes.	63	Blower	Home
39	American	.....	M.	14	Stick-up	150	112	6	Yes.	60	Blower	Home
40	American	.....	M.	14	Stick-up	100	75	6	Yes.	45	Teamster	Home
41	American	.....	M.	14	Take-out	175	175	8	Yes.	25	Deserter	Home
42	American	.....	M.	14	Stick-up	150	127	8	Yes.	45	Carpet weaver.	Home
43	American	.....	M.	14	Carry-in	50	42	4	Yes.	25	Yard hand.	Home
44	American	.....	M.	14	Mold boy	240	190	7	Yes.	70	Shipper	Home
45	American	.....	M.	14	Stick-up	225	168	24	Yes.	40	Leersman	Home
46	American	.....	M.	14	Carry-in	225	168	24	Yes.	45	Dead	Home
47	American	.....	M.	14	Carry-up	100	52	5	Yes.	60	Leersman	Home
48	American	.....	M.	14	Snap-up	192	144	10	Yes.	63	Blower	Home
49	American	.....	M.	14	Snap-up	240	192	36	Yes.	45	Laborer	Home
50	American	.....	M.	14	Carry-in	144	130	6	Yes.	54	Blower	Home
51	American	.....	M.	14	Carry-in	96	72	4	Yes.	72	Shearer's helper.	Home
52	American	.....	M.	14	Carry-in	228	205	10	Yes.	72	Painter	Home
53	American	.....	M.	14	Carry-in	216	162	9	Yes.	63	Shearer	Home
54	American	.....	M.	14	Snap-up	240	192	10	Yes.	63	Shearer	Home
55	American	.....	M.	14	Carry-in	216	173	14	Yes.	63	Blower	Home
56	American	.....	M.	14	Carry-in	240	168	10	Yes.	63	Blower	Home
57	American	.....	M.	14	Stick-up	175	148	10	Yes.	30	Blower	Work
58	American	.....	M.	14	Spare boy	200	193	8	Yes.	40	Laborer	Work
59	American	.....	M.	14	Snap-up	48	43	7	Yes.	72	Gaffer	Work
60	Amer., col	.....	M.	14	Stick-up	175	131	8	Yes.	10	Laborer	Work
61	German, N	.....	M.	14	Snap-up	240	180	10	Yes.	54	Mold maker	Home
62	German, N	.....	M.	14	Spare boy	96	82	10	Yes.	63	Blower	Home
63	Irish, N	.....	M.	14	Stick-up	228	228	10	Yes.	72	Blower	Home
64	Irish, N	.....	M.	14	Snap-up	120	90	5	Yes.	64	Laborer	Home
65	American	.....	M.	14	Mold boy	192	144	8	Yes.	72	Dead	Dead
66	Italian, N	.....	M.	14	Carry-in	100	50	24	No.	20	Laborer	Home
67	English, F	(c)	M.	14	Sorter	192	144	8	Yes.	54	Dead	Work
68	English, F	30	M.	14	Carry-in	216	162	9	Yes.	72	Laborer	Home
69	English, F	15	M.	14	Snap-up	240	204	24	Yes.	54	Incapac	Home
70	French, F	50	M.	14	Carry-in	240	204	10	Yes.	72	Blower	Home
71	German, F	20	M.	14	Stick-up	210	178	20	Yes.	55	Yard hand.	Home
72	German, F	22	M.	14	Carry-in	125	93	6	Yes.	65	Engineer	Home
73	German, F	30	M.	14	Stick-up	240	266	13	Yes.	63	Manager, general.	Home
74	German, F	27	M.	14	Carry-in	48	32	2	Yes.	72	Dead	Home
75	Irish, F	38	M.	14	Spare boy	48	31	2	Yes.	63	Laborer	Home
76	Irish, F	24	M.	14	Mold boy	240	204	12	Yes.	40	Laborer	Home
77	Italian, F	20	M.	14	Carry-in	225	135	12	Yes.	45	Farmer	Home
78	Italian, F	20	M.	14	Carry-in	150	80	7	Yes.	40	Yard hand.	Home
79	Polish, F	19	M.	14	Carry-in	24	18	1	Yes.	36	Packer	Home
80	Slav, F	6	M.	14	Carry-in	204	153	10	Yes.	63	Incapac.	Home
81	Slav, F	7	M.	14	Carry-in	225	125	20	Yes.	38	Machinist	Home
82	American	....	M. M.	14 15	Snap-up Snap-up	232 250	174 225	10 60	Yes. Yes.	63 45	Dead	Work
83	American	....	M. M.	14 15	Sorter Spare boy	192 288	144 240	8 36	No. No.	....	Laborer	Dead
84	German, N	....	M. M.	14 15	Mold boy Mold boy	120 240	90 180	5 36	Yes. Yes.	72 54	Laborer	Home
85	Irish, F	30	M. M.	14 15	Mold boy Mold boy	240 240	180 180	36 48	Yes. Yes.	27 27	Laborer	Home
86	Italian, F	20	M. M.	14 15	Carry-in Button sewer, clothing.	50 275	30 206	2 18	Yes. Yes.	50 50	Farmer	Home

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a Including one other member.

b Including two other members.

OCCUPATION, AND EDUCATION OF THE CHILD, AND ECONOMIC CONDETAIL, FOR EACH STATE—Continued.

NEW JERSEY—Continued.

Membership of family.						Income of family past year						Total earnings and income past year.	Am't retained by children 16 years and over.	Rent past year.	Per capita weekly income of family less earnings of children.		Family number.
Children of ages—				Total	Total wage earners.	Earnings of—					Other						
						Father.	Mother.	Children—									
Under 10.	10 to 13.	14 and 15.	16 and over.					Under 14.	14 and 15.	16 and over.					Under 16.	Under 14.	
1	1	1	2	[a]8	4	$360	......	....	$216	$396	....	$972	......	$120	$1.82	......	35
2	2	1	1	8	3	351	......	....	240	240	....	831	......	102	1.42	......	36
....	1	1	.....	4	2	400	......	....	143	......	$31	574	......	O. H.	2.07	......	37
....	...	2	3	7	5	1,440	......	....	204	584	....	2,228	......	192	5.56	......	38
1	1	1	.....	5	2	1,440	......	....	112	......	8	1,560	......	132	5.57	......	39
2	...	1	1	6	3	507	......	....	75	250	52	884	......	100	2.59	......	40
1	1	1	2	6	3	......	......	....	175	1,052	....	1,227	$526	78	3.37	......	41
4	...	1	.....	7	2	600	......	....	127	......	....	727	......	96	1.65	......	42
2	...	1	2	7	4	270	......	....	42	347	....	659	......	84	1.70	......	43
2	2	1	1	8	3	840	......	....	190	190	30	1,250	34	77	2.55	......	44
1	1	1	1	6	3	375	......	....	168	480	10	1,035	......	120	2.78	......	45
....	...	1	3	5	3	......	......	....	168	712	91	971	......	96	3.09	......	46
....	...	1	2	5	4	350	......	....	52	700	166	1,268	......	102	4.68	......	47
4	1	1	1	9	2	576	......	....	144	......	....	720	......	84	1.23	......	48
3	...	1	.....	6	2	441	......	....	192	......	....	633	......	84	1.41	......	49
3	1	2	.....	8	2	1,800	......	....	130	......	....	1,930	......	O. H.	4.33	......	50
1	...	1	2	6	4	480	......	....	72	370	....	922	162	90	2.72	......	51
....	...	1	1	4	2	504	......	....	205	......	....	709	......	O. H.	2.42	......	52
....	...	1	2	5	4	600	......	....	162	1,320	....	2,082	904	O. H.	7.38	......	53
....	...	1	1	4	3	480	......	....	192	204	....	876	......	108	3.29	......	54
....	1	1	.....	4	2	1,296	......	....	173	......	....	1,469	......	O. H.	6.23	......	55
4	2	1	1	10	3	1,200	......	....	168	194	....	1,562	......	90	2.68	......	56
....	...	1	.....	3	3	1,350	$56	....	148	......	....	1,554	......	78	9.01	......	57
3	1	1	1	8	4	80	63	....	193	243	2	581	......	72	.93	......	58
1	...	1	.....	4	3	240	30	....	43	......	....	313	......	108	1.30	......	59
....	1	1	.....	4	3	412	50	....	131	......	35	628	......	48	2.39	......	60
2	...	1	1	6	3	640	......	....	180	204	....	1,024	......	96	2.71	......	61
2	1	1	2	8	4	1,142	......	....	82	415	....	1,639	......	120	3.74	......	62
1	...	1	.....	[b]6	2	1,596	......	....	228	......	....	1,824	......	O. H.	5.12	......	63
....	1	1	4	8	5	375	......	....	90	720	12	1,197	118	84	2.66	......	64
....	...	1	.....	2	1	......	......	....	144	......	110	254	......	84	1.06	......	65
1	...	1	1	5	3	125	......	....	50	50	10	235	50	O. H.	.71	......	66
....	...	1	2	4	3	......	50	....	144	375	....	569	......	72	2.04	......	67
....	1	1	2	6	3	396	......	....	162	232	....	790	76	84	2.01	......	68
....	...	1	1	4	2	......	......	....	204	221	....	425	......	48	1.06	......	69
....	...	1	1	4	3	1,140	......	....	204	240	....	1,584	......	168	6.63	......	70
....	1	1	1	5	3	433	......	....	178	195	....	806	......	84	2.42	......	71
2	2	1	2	9	4	648	......	....	93	245	55	1,041	......	84	2.03	......	72
....	...	1	4	7	5	780	......	....	266	923	12	1,981	344	126	4.71	......	73
....	...	1	4	6	5	......	......	....	32	1,271	....	1,303	164	O. H.	4.07	......	74
....	...	1	3	6	5	180	......	....	31	624	8	843	48	102	2.60	......	75
1	1	1	2	7	3	360	......	....	204	228	....	792	......	72	1.62	......	76
....	...	1	1	4	3	300	......	....	135	187	20	642	......	O. H.	2.44	......	77
1	...	1	.....	4	2	312	......	....	80	......	39	431	......	O. H.	1.69	......	78
1	1	1	2	[a]8	3	288	......	....	18	202	210	718	......	O. H.	1.68	......	79
....	1	1	1	5	2	......	......	....	153	300	....	453	......	120	1.15	......	80
2	1	1	.....	6	2	250	......	....	125	......	12	387	......	84	.84	......	81
2	...	2	1	6	4	......	490	....	399	119	....	1,008	......	84	1.95	......	82
1	1	2	1	6	3	450	......	....	384	......	....	834	......	60	1.44	......	83
....	1	2	4	9	6	144	......	....	270	905	....	1,319	......	96	2.24	......	84
....	1	2	.....	5	3	450	......	....	360	......	....	810	......	66	1.73	......	85
3	1	2	1	9	4	960	......	....	236	206	120	1,522	......	O. H.	2.75	......	86

[c] Not reported.

TABLE XXVII.—CHILDREN UNDER 16 YEARS OF AGE AT WORK: AGE, DITION OF THE CHILD AND THE FAMILY, IN

NEW JERSEY—Continued.

Family number.	The father.		The child.								Membership of family.	
											Occupation or condition of—	
	Race and nativity.	Yrs. in U. S.	Sex.	Age.	Occupation or industry.	Days worked past year.	Earnings past year.	Mos. since beginning work.	Can read and write.	Mos. school attendance.	Father.	Mother.
87	American		M.	14	Sorter	96	$72	4	Yes	72	Teamster	Home
			F.	15	Sewer, clothing	290	242	12	Yes	54		
88	American		M.	14	Snap-up	216	162	18	Yes	63	Laborer	Home
			F.	15	Tie-on	48	40	6	Yes	54		
89	Polish, F.	5	M.	14	Stick-up	50	37	24	Yes	40	Laborer	Home
			F.	15	Sewer, shirts	125	60	24	Yes	40		
90	American		M.	15	Carry-up	144	94	18	Yes	72	Laborer	Home
91	American		M.	15	Carry-in	240	204	17	Yes	54	Shearer	Home
92	American		M.	15	Carry-in	240	180	19	Yes	45	Lamp worker	Home
93	American		M.	15	Carry-in	240	204	10	Yes	72	Grinder	Home
94	American		M.	15	Stick-up	225	210	20	Yes	55	Canvasser	Home
95	American		M.	15	Mold boy	240	200	12	Yes	36	Dead	Home
96	American		M.	15	Stick-up	240	190	36	Yes	40	Laborer	Home
97	American		M.	15	Stick-up	240	180	12	Yes	60	Laborer	Home
98	American		M.	15	Stick-up	100	75	6	Yes	50	Blower	Dead
99	American		M.	15	Snap-up	240	204	27	Yes	54	Shearer's helper	Home
100	American		M.	15	Snap-up	216	162	9	Yes	72	Leersman	Home
101	American		M.	15	Snap-up	240	192	23	Yes	42	Laborer	Home
102	American		M.	15	Carry-in	240	216	24	Yes	54	Shearer	Home
103	American		M.	15	Mold boy	240	204	48	No	18	Laborer	Home
104	American		M.	15	Snap-up	240	204	24	Yes	63	Blower	Home
105	American		M.	15	Carry-in	230	173	17	Yes	63	Laborer	Home
106	American		M.	15	Snap-up	240	180	17	Yes	72	Blower	Home
107	American		M.	15	Snap-up	216	173	24	Yes	63	Blower	Home
108	American		M.	15	Mold boy	250	240	36	Yes	54	Watchman	Home
109	American		M.	15	Snap-up	216	184	24	Yes	63	Blower	Home
110	American		M.	15	Take-out	225	212	20	Yes	55	Incapac	Work
111	American		M.	15	Stick-up	225	162	24	Yes	55	Furnace man	Work
112	American		M.	15	Snap-up	250	200	15	Yes	72	Laborer	Work
113	American		M.	15	Stick-up	150	112	24	Yes	40	Driver	Work
114	Amer., col		M.	15	Stick-up	225	190	24	Yes	36	Carry-in	Home
115	French, N		M.	15	Mold boy	240	204	24	Yes	54	Weaver	Home
116	German, N		M.	15	Cutter, tubing	240	156	30	Yes	63	Spare hand.	Home
117	German, N		M.	15	Snap-up	216	162	24	Yes	54	Laborer	Home
118	English, F	30	M.	15	Stick-up	225	146	15	Yes	60	Grocer	Home
119	French, F	40	M.	15	Snap-up	210	158	9	Yes	63	Laborer	Home
120	French, F	6	M.	15	Mold boy	240	204	17	Yes	36	Laborer	Home
121	German, F	39	M.	15	Snap-up	144	108	30	Yes	54	Blower	Work
122	German, F	25	M.	15	Mold boy	240	180	18	Yes	72	Laborer	Home
123	German, F	27	M.	15	Snap-up	240	180	36	Yes	54	Laborer	Home
124	German, F	30	M.	15	Carry-in	225	191	36	Yes	45	Yard hand.	Home
125	German, F	24	M.	15	Stick-up	75	48	3	Yes	65	Laborer	Home
126	German, F	26	M.	15	Stick-up	225	146	21	Yes	50	Dead	Home
127	Irish, F	17	M.	15	Carry-in	240	180	10	Yes	72	Stoker	Home
128	American		M.	15	Stick-up	200	140	8	Yes	45	Leersman	Home
			F.	15	Packer	200	160	36	Yes	40		
129	American		F.	15	Sorter	240	200	24	Yes	72	Laborer	Home
130	American		F.	15	Tie-on	48	34	2	Yes	81	Mold maker	Home
131	American		F.	15	Washer	240	162	14	Yes	72	Lamp worker	Home
132	American		F.	15	Washer	200	132	24	Yes	50	Driver	Home
133	American		F.	15	Packer	50	32	2	Yes	60	Presser	Home
134	German, F	27	F.	15	Sorter	225	185	15	Yes	50	Farmer	Home
135	Irish, F	36	F.	15	Washer	96	88	5	Yes	63	Blower	Home

a Including 1 other member.

OCCUPATION, AND EDUCATION OF THE CHILD, AND ECONOMIC CON- DETAIL, FOR EACH STATE—Continued.

NEW JERSEY—Concluded.

Membership of family.						Income of family past year.						Total earnings and income past year.	Am't retained by children 16 years and over.	Rent past year.	Per capita weekly income of family less earnings of children.		Family number.
Children of ages—				Total.	Total wage earners.	Earnings of—					Other.						
								Children—									
Under 10.	10 to 13.	14 and 15.	16 and over.			Father.	Mother.	Under 14.	14 and 15.	16 and over.					Under 16.	Under 14.	
2	1	2	2	9	5	$465	......	....	$314	$ 502	....	$1,281	$346	$108	$2.07	......	87
2	...	2	3	9	5	515	......	....	202	731	....	1,448	......	120	2.66	......	88
1	2	2	1	8	4	337	......	....	97	150	$23	607	......	84	1.23	......	89
....	1	1	3	7	5	525	......	....	94	630	2	1,251	......	O. H.	3.18	......	90
1	...	1	1	5	3	900	......	....	204	240	....	1,344	......	120	4.38	......	91
2	2	1	.....	7	2	768	......	....	180	......	....	948	......	84	2.11	......	92
1	1	1	1	6	3	480	......	....	204	185	....	869	......	O. H.	2.13	......	93
4	1	1	.....	8	2	337	......	....	210	......	15	562	......	60	.85	......	94
1	...	1	2	5	3	......	......	....	200	530	....	730	......	77	2.04	......	95
2	2	1	.....	7	2	375	......	....	190	......	....	565	......	53	1.03	......	96
....	...	1	1	4	3	300	......	....	180	240	....	720	84	65	2.60	......	97
2	...	1	2	6	3	500	......	....	75	572	210	1,357	......	132	4.11	......	98
3	...	1	.....	6	2	408	......	....	204	......	....	612	......	90	1.31	......	99
....	1	1	1	5	3	360	......	....	162	756	....	1,278	600	O. H.	4.29	......	100
2	...	1	1	6	3	415	......	....	192	204	....	811	......	101	1.98	......	101
1	1	1	3	8	5	480	......	....	216	768	....	1,464	124	78	3.00	......	102
4	...	1	1	8	3	441	......	....	204	336	....	981	......	109	1.87	......	103
....	1	1	.....	a 5	2	1,449	......	....	204	......	....	1,644	......	O. H.	5.54	......	104
1	...	1	2	6	3	304	......	....	173	324	20	821	......	120	2.08	......	105
2	1	1	.....	6	2	1,176	......	....	180	......	....	1,356	......	O. H.	3.77	......	106
2	1	1	1	7	3	1,152	......	....	173	240	....	1,565	......	84	3.82	......	107
2	2	1	3	10	5	450	......	....	240	800	660	2,150	......	O. H.	3.67	......	108
....	...	1	1	4	3	672	......	....	184	198	....	1,054	......	126	4.18	......	109
....	...	1	2	5	4	......	$90	....	212	769	....	1,071	......	108	3.30	......	110
4	1	1	1	9	4	485	40	....	162	100	10	797	......	90	1.36	......	111
3	1	1	1	8	4	375	300	....	200	263	....	1,138	......	O. H.	2.25	......	112
....	1	1	1	5	4	600	20	....	112	337	70	1,139	......	108	3.95	......	113
2	...	1	1	6	3	225	......	....	190	225	118	758	......	84	1.82	......	114
....	...	1	.....	3	2	588	......	....	204	......	....	792	......	90	3.77	......	115
....	1	1	2	6	3	540	......	....	156	208	68	972	......	84	2.62	......	116
1	1	1	.....	5	2	288	......	....	162	......	....	450	......	90	1.11	......	117
2	1	1	2	8	4	750	......	....	146	900	124	1,920	228	O. H.	4.26	......	118
2	...	1	3	8	5	396	......	....	158	1,186	....	1,740	280	84	3.80	......	119
....	...	1	.....	3	2	441	......	....	204	......	....	645	......	60	2.83	......	120
1	1	1	.....	5	3	864	120	....	108	......	....	1,092	......	108	3.78	......	121
3	2	1	2	10	4	324	......	....	180	780	....	1,284	......	O. H.	2.12	......	122
1	...	1	3	7	5	360	......	....	180	634	8	1,182	140	102	2.75	......	123
1	2	1	3	9	5	345	......	....	191	686	95	1,317	......	102	2.41	......	124
1	2	1	4	10	5	343	......	....	48	990	25	1,406	......	O. H.	2.61	......	125
....	...	1	4	6	5	......	......	....	146	1,038	5	1,189	281	108	3.34	......	126
5	1	1	.....	9	2	655	......	....	180	......	3	838	......	O. H.	1.41	......	127
2	1	2	.....	7	3	430	......	....	300	......	3	733	......	96	1.19	......	128
....	...	1	3	6	5	396	......	....	200	1,356	....	1,952	784	90	5.62	......	129
1	...	1	.....	4	2	630	......	....	34	......	....	664	......	O. H.	3.03	......	130
....	1	1	1	5	3	576	......	....	162	300	....	1,038	......	O. H.	3.37	......	131
1	1	1	2	7	3	412	......	....	132	60	6	610	......	96	1.31	......	132
....	...	1	2	5	4	562	......	....	32	361	....	955	205	102	3.55	......	133
1	...	1	1	5	3	300	......	....	185	185	85	755	......	O. H.	2.19	......	134
1	1	1	3	8	5	360	......	....	88	618	....	1,066	......	90	2.35	......	135

TABLE XXVII.—CHILDREN UNDER 16 YEARS OF AGE AT WORK: AGE, DITION OF THE CHILD AND THE FAMILY, IN

PENNSYLVANIA.

Family number.	The father.		The child.								Membership of family. Occupation or condition of—	
	Race and nativity.	Yrs. in U. S.	Sex.	Age.	Occupation or industry.	Days worked past year.	Earnings past year.	Mos. since beginning work.	Can read and write.	Mos. school attendance.	Father.	Mother.
1	American		M.	11	Snap-up	252	$189	12	Yes.	45	Leersman	Home
			M.	13	Carry-in	252	252	36	Yes.	45		
2	American		M.	12	Stick-up	75	56	3	Yes.	40	Dead	Home
3	Irish, F	30	M.	12	Carry-in	26	14	3	Yes.	40	Laborer	Home
4	Slav, F	18	M.	12	Crack-off	170	102	7	Yes.	36	Dead	Work
5	English, F	22	F.	12	Wrapper	66	44	3	Yes.	50	Packer	Home
6	American		M.	12	Machine boy	120	122	5	Yes.	54	Dead	Work
			M.	14	Mold boy	288	291	34	Yes.	54		
7	Italian, F	18	M.	12	Stick-up	80	60	3	Yes.	42	Miner	Home
			M.	14	Dipper, candy.	310	325	12	Yes.	45		
8	Russian, F	20	M.	12	Carry-in	120	144	5	Yes.	40	Idle	Home
			M.	14	Mold boy	265	398	5	Yes.	36		
9	Slav, F	18	M.	12	Stick-up	125	125	7	Yes.	20	Dryer	Home
			M.	14	Carry-in	75	75	3	Yes.	40		
10	Polish, F	16	F.	12	Carry-in	236	141	10	Yes.	40	Dead	Home
			M.	14	Wiper	240	120	18	Yes.	36		
11	American		M.	12	Carry-over	35	33	6	Yes.	(a)	Away	Home
			M.	15	Carry-in	100	90	6	Yes.	67		
12	American		M.	13	Carry-in	200	164	12	Yes.	54	Roofer, slag.	Home
13	American		M.	13	Stick-up	216	168	9	Yes.	63	Brass fin	Work
14	American		M.	13	Snap-up	156	156	14	Yes.	35	Teamster	Home
15	American		M.	13	Carry-in	60	55	4	Yes.	54	Dead	Home
16	American		M.	13	Stick-up	192	230	24	Yes.	45	Laborer	Home
17	German, N		M.	13	Carry-in	100	93	4	Yes.	60	Laborer	Home
18	Irish, N		M.	13	Snap-up	104	68	6	Yes.	63	Laborer	Work
19	Irish, N		M.	13	Carry-in	30	16	9	Yes.	(a)	Packer	Home
20	English, F	12	M.	13	Carry-in	180	127	8	Yes.	48	Chain mkr.	Home
21	German, F	15	M.	13	Carry-in	125	115	7	Yes.	54	Molder	Home
22	German, F	24	M.	13	Stick-up	125	115	7	Yes.	54	Carpenter	Home
23	German, F	18	M.	13	Clean-off	118	57	12	Yes.	54	Laborer	Work
24	Irish, F	34	M.	13	Stick-up	50	49	2	Yes.	63	Engineer, stationary.	Home
25	Irish, F	20	M.	13	Clean-off	150	88	9	Yes.	63	Foreman	Home
26	Irish, F	22	M.	13	Carry-in	10	5	3	Yes.	63	Engineer, steamboat.	Home
27	Italian, F	14	M.	13	Carry-in	104	96	4	Yes.	48	Section h'd.	Home
28	Polish, F	13	M.	13	Stick-up	100	100	4	Yes.	50	Laborer	Home
29	Polish, F	9	M.	13	Mold boy	18	20	1	Yes.	50	Laborer	Home
30	Polish, F	8	M.	13	Carry-in	76	53	3	Yes.	55	Cokedrawer	Home
31	Polish, F	21	M.	13	Mold boy	49	45	2	Yes.	65	Laborer	Home
32	Slav, F	10	M.	13	Stick-up	225	200	11	Yes.	40	Laborer	Home
33	Slav, F	17	M.	13	Carry-in	200	200	16	Yes.	30	Dead	Home
34	German, N		F.	13	Wrapper	289	192	12	Yes.	45	Fireman, sta	Home
35	French, F	18	F.	13	Wrapper	75	50	3	Yes.	54	Divorced	Work
36	Polish, F	25	F.	13	Clipper	144	72	6	Yes.	63	Fireman, sta	Home
37	American		M.	13	Water boy	182	91	14	Yes.	48	Laborer	Home
			M.	14	Snap-up	258	258	24	Yes.	47		
38	American		M.	13	Clean-off	180	90	8	Yes.	56	Blower	Home
			M.	14	Stick-up	240	160	9	Yes.	56		
39	Irish, F	30	M.	13	Carry-in	72	47	3	Yes.	63	Laborer	Home
			M.	14	Carry-in	144	94	6	Yes.	63		
40	Bohem., F	21	F.	13	Wiper	126	63	5	Yes.	56	Dead	Work
			M.	14	Carry-in	130	78	6	Yes.	42		
41	German, F	36	M.	13	Stick-up	110	82	5	Yes.	50	Laborer	Home
			F.	14	Domestic	30	12	1	Yes.	56		
42	Polish, F	25	F.	13	Etcher, needle.	202	101	9	Yes.	63	Laborer	Home
			F.	14	Selector	240	120	21	Yes.	54		
43	Slav, F	21	F.	13	Cut-off	232	116	12	Yes.	42	Miner	Home
			F.	14	Wrapper	238	119	10	Yes.	48		

[a] Still in school.

[b] Including 2 other members.

OCCUPATION, AND EDUCATION OF THE CHILD. AND ECONOMIC CONDETAIL, FOR EACH STATE—Continued.

PENNSYLVANIA.

Membership of family.						Income of family past year.						Total earnings and income past year.	Am't retained by children 16 years and over.	Rent past year.	Per capita weekly income of family less earnings of children.		Family number.
Children of ages—				Total.	Total wage earners.	Earnings of—					Other.						
								Children—									
Under 10.	10 to 13.	14 and 15.	16 and over.			Father.	Mother.	Under 14.	14 and 15.	16 and over.					Under 16.	Under 14.	
4	2	....	2	10	5	$320	......	$441	.....	$491	....	$1,252	$256	O.H.	$1.56	$1.56	1
2	1	....	1	5	2	......	......	56	.....	350	....	406	......	$72	1.35	1.35	2
....	2	....	.....	4	2	360	......	14	.....	......	$6	380	......	96	1.76	1.76	3
....	1	....	.....	2	2	......	$78	102	.....	......	....	180	......	O.H.	.75	.75	4
1	2	....	2	7	3	300	......	44	.....	250	....	594	......	162	1.51	1.51	5
1	2	1	1	6	3	......	225	122	$291	......	....	638	......	108	.72	1.65	6
5	1	1	.....	9	3	660	......	60	325	......	....	1,045	......	102	1.41	2.10	7
2	2	1	.....	7	2	......	......	144	398	......	....	542	......	96	......	1.09	8
2	1	1	1	7	3	373	......	125	75	......	4	577	......	60	1.04	1.24	9
3	2	1	.....	7	2	......	......	141	120	......	....	261	......	O.H.	......	.33	10
2	2	1	1	7	3	......	......	33	90	350	283	756	......	156	1.74	1.99	11
3	3	....	.....	8	2	400	......	164	.....	......	....	564	......	30	.96	.96	12
3	2	....	2	9	5	360	195	168	.....	236	....	959	......	216	1.69	1.69	13
....	2	....	3	*b* 9	5	360	......	156	.....	741	87	1,344	......	O.H.	2.54	2.54	14
....	1	....	2	4	2	......	......	55	.....	437	156	648	......	156	2.85	2.85	15
3	2	....	1	8	3	240	......	230	.....	360	....	830	......	144	1.44	1.44	16
....	1	....	1	4	3	495	......	93	.....	412	....	1,000	178	84	4.36	4.36	17
1	2	....	.....	5	3	305	125	68	.....	......	10	508	......	84	1.69	1.69	18
4	2	1	.....	*c*10	2	432	......	16	.....	......	....	448	......	144	.83	.83	19
1	2	....	3	8	5	456	......	127	.....	698	....	1,281	......	168	2.77	2.77	20
3	3	....	.....	8	2	550	......	115	.....	......	....	665	......	120	1.32	1.32	21
2	2	....	2	8	4	400	......	115	.....	720	....	1,235	......	120	2.69	2.69	22
3	1	1	.....	7	3	210	120	57	.....	......	15	402	......	60	.95	.95	23
1	3	....	.....	6	2	750	......	49	.....	......	....	799	......	96	2.40	2.40	24
3	2	....	.....	7	2	832	......	88	.....	......	....	920	......	108	2.29	2.29	25
3	2	....	3	10	4	900	......	5	.....	607	....	1,512	300	O.H.	2.90	2.90	26
5	1	....	.....	8	2	291	......	96	.....	......	....	387	......	36	.70	.70	27
4	1	....	.....	7	2	540	......	100	.....	......	7	647	......	84	1.50	1.50	28
....	1	1	1	5	3	537	......	20	.....	750	109	1,416	......	108	5.37	5.37	29
3	3	....	.....	8	2	300	......	53	.....	......	45	398	......	O.H.	.83	.83	30
4	2	....	.....	8	2	240	......	45	.....	......	....	285	......	108	.58	.58	31
3	1	....	.....	6	2	280	......	200	.....	......	....	480	......	60	.90	.90	32
3	1	....	.....	5	1	......	......	200	.....	......	8	208	......	O.H.	.03	.03	33
1	2	....	1	6	3	610	......	192	.....	312	25	1,139	......	264	3.04	3.04	34
....	1	....	1	3	3	......	156	50	.....	195	106	507	......	O.H.	2.93	2.93	35
3	2	....	.....	7	2	468	......	72	.....	......	....	540	......	O.H.	1.29	1.29	36
3	1	1	3	10	5	500	......	91	258	520	....	1,369	130	O.H.	1.96	2.46	37
3	2	1	.....	8	3	980	......	90	160	......	....	1,230	......	156	2.36	2.74	38
4	2	1	.....	9	3	360	......	47	94	......	....	501	......	132	.77	.97	39
...	1	1	1	4	4	......	200	63	78	168	....	509	......	84	1.77	2.14	40
4	2	1	.....	*c*10	3	250	......	82	12	......	....	344	......	48	.48	.50	41
4	2	1	.....	9	3	480	......	101	120	......	20	721	......	48	1.07	1.32	42
5	2	1	1	11	4	240	......	116	119	121	73	669	......	O.H.	.76	.97	43

c Including 1 other member.

TABLE XXVII.—CHILDREN UNDER 16 YEARS OF AGE AT WORK: AGE, DITION OF THE CHILD AND THE FAMILY, IN

PENNSYLVANIA—Continued.

Family number.	The father.		The child.								Membership of family.	
	Race and nativity.	Yrs. in U. S.	Sex.	Age.	Occupation or industry.	Days worked past year.	Earnings past year.	Mos. since beginning work.	Can read and write.	Mos. school attendance.	Occupation or condition of— Father.	Occupation or condition of— Mother.
44	American		M.	13	Stick-up	100	90	4	Yes.	54	Mold cleaner.	Home
			M.	15	Stick-up	100	90	4	Yes.	60		
45	German, N.		M.	13	Carry-in	130	91	5	Yes.	63	Dead	Work
			M.	15	Clean-off	280	172	24	Yes.	63		
46	Irish, N.		M.	13	Carry-in	78	60	3	Yes.	60	Bricklayer	Work
			M.	15	Clean-off	290	191	36	Yes.	54		
47	German, F.	27	M.	13	Stick-up	45	33	2	Yes.	40	Bartender	Home
			M.	15	Clerk, drug	300	200	36	Yes.	60		
48	Polish, F.	7	M.	13	Carry-in	152	91	6	Yes.	45	Cokedrawer	Home
			M.	15	Carry-in	180	108	7	Yes.	48		
49	Slovak, F.	15	M.	13	Mold boy	282	388	36	Yes.	18	Dead	Work
			M.	15	Carry-in	282	388	48	Yes.	27		
50	American		M.	13	Carry-in	210	105	9	Yes.	54	Dead	Home
			F.	15	Topper, hosiery.	102	85	36	Yes.	54		
51	Irish, F.	18	M.	13	Spare boy	90	52	4	Yes.	56	Laborer	Home
			F.	15	Domestic	365	104	12	Yes.	56		
52	Polish, F.	18	M.	13	Stick-up	80	64	4	Yes.	60	Laborer	Home
			F.	15	Stripper, cigar.	250	200	12	Yes.	60		
53	Polish, F.	20	F.	13	Domestic	365	104	12	Yes.	48	Laborer	Home
			M.	15	Carry-in	100	76	24	Yes.	48		
54	Italian, F.	12	M.	13	Snap-up	252	252	36	Yes.	30	Laborer	Home
			M.	14	Snap-up	252	252	36	Yes.	30		
			M.	15	Carry-in	252	315	60	No.	9		
55	American		M.	14	Carry-in	220	143	10	Yes.	54	Laborer	Home
56	American		M.	14	Stick-up	204	245	15	Yes.	63	Plasterer	Home
57	American		M.	14	Mold boy	60	45	2	Yes.	30	Laborer	Home
58	American		M.	14	Carry-in	30	30	2	Yes.	60	Laborer	Home
59	American		M.	14	Carry-in	144	144	6	Yes.	63	Incapac	Separated.
60	American		M.	14	Carry-in	56	41	3	Yes.	30	Dead	Home
61	American		M.	14	Carry-over	192	192	8	Yes.	72	Foreman	Home
62	American		M.	14	Carry-in	150	135	8	Yes.	50	Carpenter	Home
63	American		M.	14	Carry-in	60	32	(c)	(c)	(c)	Dead	Home
64	American		M.	14	Carry-in	60	34	(c)	(c)	(c)	Laborer	Home
65	American		M.	14	Spare boy	75	56	3	Yes.	64	Polisher	Home
66	American		M.	14	Mold boy	300	220	13	Yes.	54	Laborer	Home
67	American		M.	14	Carry-in	180	108	10	Yes.	45	Carpenter	Home
68	American		M.	14	Mold boy	198	149	10	Yes.	54	Teamster	Home
69	American		M.	14	Stick-up	40	33	18	Yes.	70	Blower	Home
70	American		M.	14	Mold boy	120	75	6	Yes.	63	Laborer	Home
71	American		M.	14	Carry-in	210	179	24	Yes.	48	Laborer	Dead.
72	American		M.	14	Carry-in	208	117	10	Yes.	63	Laborer	Dead.
73	American		M.	14	Clean-off	150	81	16	Yes.	54	Teamster	Home
74	American		M.	14	Wiper	120	80	40	Yes.	80	Dead	Home
75	American		M.	14	Box maker	24	16	1	Yes.	72	Incapac	Home
76	American		M.	14	Machine boy	307	307	24	Yes.	48	Police, R. R.	Home
77	American		M.	14	Machine boy	204	204	10	Yes.	72	Miner	Home
78	American		M.	14	Take-out	120	55	24	Yes.	56	Dead	Home
79	American		M.	14	Clean-off	200	195	24	Yes.	24	Idle	Home
80	American		M.	14	Carry-in	80	64	4	Yes.	60	Stonecutter	Home
81	American		M.	14	Mold boy	75	60	4	Yes.	56	Blower	Home
82	American		M.	14	Stick-up	240	180	16	Yes.	42	Wood chopper.	Home
83	American		M.	14	Snap-up	84	84	4	Yes.	56	Dead	Home
84	American		M.	14	Snap-up	108	96	4	Yes.	72	Blower	Home
85	American		M.	14	Snap-up	252	252	12	Yes.	40	Laborer	Home
86	American		M.	14	Mold boy	156	156	8	Yes.	64	Dead	Home
87	American		M.	14	Mold boy	240	216	24	Yes.	40	Dead	Home
88	American		M.	14	Mold boy	252	252	12	Yes.	42	Laborer	Home
89	American		M.	14	Mold boy	252	252	24	Yes.	54	Farmer	Home

[a] Amount of life insurance received.

OCCUPATION, AND EDUCATION OF THE CHILD, AND ECONOMIC CONDETAIL, FOR EACH STATE—Continued.

PENNSYLVANIA—Continued.

Membership of family.						Income of family past year.						Total earnings and income past year.	Am't retained by children 16 years and over.	Rent past year.	Per capita weekly income of family less earnings of children.		Family number.
Children of ages—				Total.	Total wage earners.	Earnings of—					Other.						
						Father.	Mother.	Children—									
Under 10.	10 to 13.	14 and 15.	16 and over.					Under 14.	14 and 15.	16 and over.					Under 16.	Under 14.	
4	2	1	.....	9	3	$275	......	$90	$90	......	....	$455	......	$108	$0.59	$0.78	44
1	2	1	1	6	4	....	$198	91	172	$200	[a]$350	1,011	......	132	2.40	2.95	45
4	2	1	.....	9	4	260	104	60	191	......	78	693	......	132	.94	1.35	46
4	2	1	2	11	5	730	......	33	200	1,330	....	2,293	$670	O.H.	3.60	3.95	47
2	2	1	1	8	4	319	......	91	108	166	35	719	......	84	1.25	1.51	48
2	2	1	.....	6	3	....	78	388	388	......	....	854	......	72	.25	1.49	49
....	1	1	.....	3	2	....	......	105	85	......	128	318	......	168	.82	1.37	50
2	2	1	1	8	4	430	......	52	104	91	....	677	......	60	1.25	1.50	51
4	2	1	2	11	5	700	......	64	200	701	....	1,665	160	108	2.45	2.80	52
....	2	1	4	9	7	315	......	104	76	940	5	1,440	......	O.H.	2.69	2.85	53
3	2	2	.....	9	4	364	......	252	567	......	....	1,183	......	O.H.	.78	1.99	54
1	1	2	1	[b]8	3	600	......	....	143	149	....	892	......	108	1.80	......	55
3	...	2	2	9	4	720	......	....	245	1,312	....	2,277	652	240	4.34	......	56
....	1	1	2	6	4	413	......	....	45	511	2	971	308	144	2.97	......	57
1	1	1	1	6	3	600	......	....	30	130	....	760	......	144	2.34	......	58
....	1	1	6	9	5	....	......	....	144	1,447	....	1,591	......	252	3.09	......	59
2	1	2	2	8	3	....	......	....	41	356	65	462	......	108	1.01	......	60
3	1	1	1	8	3	1,296	......	....	192	12	5	1,505	......	O.H.	3.16	......	61
2	1	1	1	7	2	487	......	....	135	......	....	622	......	120	1.34	......	62
....	...	1	3	5	4	....	......	....	32	665	....	697	......	108	2.56	......	63
....	...	1	.....	3	2	420	......	....	34	......	....	454	......	O.H.	2.69	......	64
3	1	1	1	8	3	350	......	....	56	131	52	589	......	150	1.28	......	65
2	1	1	.....	6	2	300	......	....	220	......	31	551	......	144	1.06	......	66
4	...	1	.....	7	2	512	......	....	108	......	10	630	......	144	1.43	......	67
2	1	1	.....	6	2	468	......	....	149	......	....	617	......	108	1.50	......	68
2	2	1	.....	7	2	1,200	......	....	33	......	38	1,271	......	156	3.40	......	69
2	1	1	.....	6	2	300	......	....	75	......	....	375	......	96	.96	......	70
2	2	1	2	8	3	250	......	....	179	225	....	654	225	60	1.14	......	71
1	1	1	3	7	4	520	......	....	117	447	5	1,089	......	144	2.67	......	72
2	2	1	1	8	3	480	......	....	81	420	....	981	300	90	2.16	......	73
3	2	1	1	8	2	....	......	....	80	250	....	330	......	132	.60	......	74
....	...	1	5	8	4	....	......	....	16	1,501	52	1,569	981	144	3.73	......	75
3	1	1	1	8	3	720	......	....	307	288	30	1,345	141	O.H.	2.50	......	76
....	...	1	1	4	3	540	......	....	204	390	27	1,161	......	96	4.60	......	77
....	...	1	2	4	3	....	......	....	55	850	15	920	292	O.H.	4.16	......	78
....	...	1	1	4	2	....	......	....	195	315	18	528	65	O.H.	1.60	......	79
....	1	1	3	7	5	792	......	....	64	456	94	1,406	126	150	3.69	......	80
4	...	1	.....	7	2	840	......	....	60	......	....	900	......	120	2.31	......	81
1	1	1	2	7	4	480	......	....	180	504	....	1,164	......	144	2.70	......	82
2	2	1	2	[b]9	3	....	......	....	84	688	....	772	234	72	1.47	......	83
2	...	1	2	7	4	300	......	....	96	384	....	780	......	72	1.88	......	84
....	2	1	.....	[b]6	2	398	......	....	252	......	50	700	......	O.H.	1.44	......	85
....	...	1	2	4	2	....	......	....	156	216	....	372	216	72	1.04	......	86
1	1	1	1	5	2	....	......	....	216	270	57	543	......	84	1.26	......	87
2	1	1	.....	6	2	273	......	....	252	......	....	525	......	O.H.	.88	......	88
....	...	1	1	4	3	780	......	....	252	524	....	1,556	304	O.H.	6.27	......	89

[b] Including 1 other member.

[c] Not reported.

TABLE XXVII.—CHILDREN UNDER 16 YEARS OF AGE AT WORK: AGE, DITION OF THE CHILD AND THE FAMILY, IN

PENNSYLVANIA—Continued.

Family number.	The father.		The child.								Membership of family.	
											Occupation or condition of—	
	Race and nativity.	Yrs. in U. S.	Sex.	Age.	Occupation or industry.	Days worked past year.	Earnings past year.	Mos. since beginning work.	Can read and write.	Mos. school attendance.	Father.	Mother.
90	American		M.	14	Stick-up	120	$120	5	Yes.	63	Mechanic	Home
91	American		M.	14	Stick-up	80	60	3	Yes.	70	Driver	Home
92	American		M.	14	Stick-up	75	56	3	Yes.	65	Painter and decorator.	Home
93	American		M.	14	Carry-in	180	225	10	Yes.	63	Blower	Home
94	American		M.	14	Carry-in	228	147	18	Yes.	56	Driver	Home
95	American		M.	14	Carry-in	120	78	6	Yes.	63	Painter	Home
96	American		M.	14	Snap-up	96	62	4	Yes.	54	Laborer	Home
97	American		M.	14	Carry-in	234	152	9	Yes.	56	Laborer	Home
98	American		M.	14	Mold boy	60	50	(b)	(b)	(b)	Laborer	Home
99	American		M.	14	Machine boy	275	258	12	Yes.	50	Leersman	Home
100	American		M.	14	Carry-in	125	110	7	Yes.	50	Plumber	Home
101	American		M.	14	Carry-in	240	216	17	Yes.	45	Incapac	Home
102	American		M.	14	Stick-up	100	100	4	Yes.	60	Laborer	Home
103	American		M.	14	Carry-in	228	171	12	Yes.	49	Agent, sew. mach.	Home
104	American		M.	14	Snap-up	96	72	4	Yes.	64	Machinist	Home
105	American		M.	14	Snap-up	36	27	2	Yes.	64	Plumber	Home
106	American		M.	14	Snap-up	104	72	4	Yes.	64	Beam hand	Home
107	American		M.	14	Water boy	108	57	10	Yes.	68	Cabinetmkr	Home
108	American		M.	14	Snap-up	72	72	4	Yes.	56	Dead	Home
109	American		M.	14	Snap-up	104	96	4	Yes.	60	Packer	Home
110	American		M	14	Snap-up	52	48	2	Yes.	56	Incapac	Home
111	American		M.	14	Stick-up	150	150	7	Yes.	50	Farmer	Home
112	American		M.	14	Carry-in	258	258	24	Yes.	35	Yard hand	Home
113	American		M.	14	Carry-in	50	30	2	Yes.	64	Laborer	Home
114	American		M.	14	Carry-in	16	11	3	Yes.	56	Miner	Home
115	American		M.	14	Snap-up	14	14	1	Yes.	48	Blower	Home
116	American		M.	14	Stopperer	140	84	4	Yes.	72	Dead	Home
117	American		M.	14	Clean-off	220	210	4	Yes.	42	Dead	Work
118	American		M.	14	Carry-in	192	136	8	Yes.	63	Dead	Work
119	American		M.	14	Machine boy	275	292	24	Yes.	43	Dead	Work
120	American		M.	14	Stick-up	175	190	9	Yes.	50	Dead	Work
121	American		M.	14	Clean-off	200	115	24	Yes.	54	Dead	Work
122	American		M.	14	Snap-up	104	72	4	Yes.	64	Fireman	Work
123	American		M.	14	Carry-in	80	72	4	Yes.	60	Teamster	Work
124	American		M.	14	Snap-up	288	216	12	Yes.	42	Separated	Work
125	American		M.	14	Take-out	200	200	12	Yes.	48	Separated	Work
126	Amer., col		M.	14	Core boy	144	115	6	Yes.	50	Laborer	Home
127	German, N.		M.	14	Carry-in	36	32	2	Yes.	50	Presser	Home
128	German, N.		M.	14	Carry-in	150	150	7	Yes.	64	Cellar boss	Home
129	German, N.		M.	14	Stick-up	225	264	18	Yes.	50	Laborer	Home
130	German, N.		F.	14	Order girl	126	84	(b)	(b)	(b)	Laborer	Home
131	German, N.		M.	14	Take-out	300	250	60	Yes.	27	Dead	Home
132	German, N.		M.	14	Stick-up	70	50	3	Yes.	70	Timekeeper	Home
133	German, N.		M.	14	Take-out	104	168	4	Yes.	63	Blower	Home
134	German, N.		M.	14	Clean-off	140	112	6	Yes.	50	Deserter	Home
135	German, N.		M.	14	Stick-up	60	60	4	Yes.	63	Blower	Home
136	German, N.		M.	14	Mold boy	250	240	12	Yes.	54	Carpenter	Home
137	German, N.		M.	14	Mold boy	216	151	21	Yes.	54	Watchman	Home
138	German, N.		M.	14	Carry-in	300	225	(b)	(b)	(b)	Gaffer	Home
139	German, N.		M.	14	Mold boy	290	245	(b)	(b)	(b)	Laborer	Home
140	German, N.		M.	14	Carry-in	96	62	4	Yes.	63	Molder	Home
141	German, N.		M.	14	Stick-up	100	80	9	Yes.	50	Miner	Home
142	German, N.		M.	14	Machine boy	225	220	12	Yes.	60	Engineer	Home
143	German, N.		M.	14	Snap-up	104	73	4	Yes.	64	Laborer	Home
144	German, N.		M.	14	Stick-up	180	170	12	Yes.	50	Laborer	Work
145	German, N.		M.	14	Spare boy	93	85	(b)	Yes.	72	Teamster	Home
146	Irish, N.		M.	14	Carry-in	130	80	5	Yes.	48	Laborer	Home
147	Irish, N.		M.	14	Carry-in	200	99	24	Yes.	42	Laborer	Home
148	Irish, N.		M.	14	Carry-in	156	72	6	Yes.	63	Laborer	Home
149	Irish, N.		M.	14	Carry-in	150	81	8	Yes.	56	Painter	Home

[a] Amount of life insurance received.

[b] Not reported.

OCCUPATION, AND EDUCATION OF THE CHILD, AND ECONOMIC CONDETAIL, FOR EACH STATE—Continued.

PENNSYLVANIA—Continued.

Membership of family.						Income of family past year.						Total earnings and income past year.	Am't retained by children 16 years and over.	Rent past year.	Per capita weekly income of family less earnings of children.		Family number.
Children of ages—				Total.	Total wage earners.	Earnings of—					Other.						
						Father.	Mother.	Children—									
Under 10.	10 to 13.	14 and 15.	16 and over.					Under 14.	14 and 15.	16 and over.					Under 16.	Under 14.	
5	1	1	4	13	5	$1,026	......	....	$120	$831	....	$1,977	......	168	$2.75	......	90
4	1	1	3	11	5	450	......	....	60	979	....	1,489	$485	O.H.	2.50	......	91
4	1	1	......	8	2	856	......	....	56	......	....	912	......	$120	2.06	......	92
2	1	1	2	8	3	1,140	......	....	225	171	....	1,536	......	192	3.15	......	93
4	...	1	1	8	3	576	......	....	147	168	a $100	991	......	132	2.03	......	94
2	...	1	......	5	2	600	......	....	78	......	....	678	......	96	2.31	......	95
5	1	1	......	9	2	375	......	....	62	......	....	437	......	132	.80	......	96
5	2	1	2	12	4	312	......	....	152	204	....	668	......	132	.83	......	97
....	2	1	......	5	2	197	......	....	50	......	2	249	......	48	.77	......	98
....	...	1	......	3	2	600	......	....	258	......	80	938	......	O.H.	4.36	......	99
3	2	1	1	9	3	300	......	....	110	10	52	472	......	O.H.	.77	......	100
3	1	1	1	8	2	....	......	....	216	190	....	406	......	65	.46	......	101
....	1	1	3	7	5	390	......	....	100	1,160	....	1,650	630	60	4.26	......	102
....	...	1	1	4	3	392	......	....	171	228	60	851	140	O.H.	3.27	......	103
2	1	1	......	6	2	750	......	....	72	......	....	822	......	72	2.40	......	104
....	...	1	1	4	3	819	......	....	27	440	....	1,286	264	96	6.05	......	105
2	...	1	1	6	3	312	......	....	72	399	....	783	243	120	2.28	......	106
2	2	1	......	7	2	675	......	....	57	......	....	732	......	120	1.85	......	107
2	...	1	1	5	2	....	......	....	72	264	24	360	......	84	1.11	......	108
3	2	1	......	8	2	600	......	....	96	......	40	736	......	O.H.	1.54	......	109
2	1	1	1	7	2	....	......	....	48	30	120	198	......	108	.41	......	110
3	1	1	......	7	2	450	......	....	150	......	110	710	......	120	1.54	......	111
3	1	1	3	10	4	520	......	....	258	564	68	1,410	60	O.H.	2.22	......	112
2	1	1	2	8	4	426	......	....	30	324	....	780	......	O.H.	1.80	......	113
....	...	1	2	5	4	300	......	....	11	44	....	355	......	72	1.32	......	114
4	2	1	......	9	2	1,720	......	....	14	......	....	1,734	......	162	3.68	......	115
1	1	1	3	7	4	....	......	....	84	1,060	18	1,162	......	126	2.96	......	116
1	...	1	2	5	3	....	$40	....	210	275	....	525	......	O.H.	1.21	......	117
2	1	1	......	5	2	....	210	....	136	......	10	356	......	60	.85	......	118
3	2	1	1	8	3	....	156	....	292	195	170	813	......	c 150	1.25	......	119
....	...	1	......	2	2	....	208	....	190	......	54	452	......	c 54	2.52	......	120
....	1	1	......	3	2	....	330	....	115	......	25	470	......	132	2.28	......	121
3	1	1	1	8	4	253	64	....	72	190	....	579	......	60	1.22	......	122
....	1	1	......	4	3	470	25	....	72	......	10	577	......	72	2.43	......	123
1	...	1	1	4	2	....	50	....	216	......	3	269	......	54	.25	......	124
....	...	1	......	2	2	....	100	....	200	......	....	300	......	72	.96	......	125
2	1	1	......	6	2	300	......	....	115	......	....	415	......	120	.96	......	126
2	1	1	......	6	2	144	......	....	32	......	....	176	......	O.H.	.46	......	127
2	...	1	......	5	2	885	......	....	150	......	....	1,035	......	150	3.40	......	128
4	2	1	3	12	5	475	......	....	264	324	....	1,063	......	120	1.28	......	129
3	1	1	......	7	2	520	......	....	84	......	....	604	......	144	1.43	......	130
....	2	1	2	6	3	....	......	....	250	400	....	650	......	150	1.28	......	131
5	...	1	1	9	3	1,200	......	....	50	250	....	1,500	......	168	3.10	......	132
1	...	1	......	4	2	420	......	....	168	......	....	588	......	168	2.02	......	133
1	...	1	......	3	1	....	......	....	112	......	100	212	......	c 24	.64	......	134
....	2	1	1	6	2	1,213	......	....	60	......	....	1,273	......	216	3.89	......	135
1	1	1	1	6	3	550	......	....	240	150	....	940	......	O.H.	2.24	......	136
....	...	1	......	3	2	520	......	....	151	......	....	671	......	144	3.33	......	137
....	1	1	2	6	3	1,200	......	....	225	600	250	2,275	......	O.H.	6.57	......	138
1	...	1	1	5	3	216	......	....	245	250	....	711	......	108	1.79	......	139
4	2	1	......	9	2	540	......	....	62	......	20	622	......	156	1.20	......	140
....	3	1	1	7	3	550	......	....	80	100	....	730	......	132	1.79	......	141
2	1	1	2	8	4	900	......	....	220	1,025	200	2,345	613	O.H.	5.11	......	142
1	1	1	2	7	3	399	......	....	73	190	....	662	......	72	1.62	......	143
1	1	2	1	7	3	437	100	....	170	......	....	707	......	84	1.48	......	144
2	...	1	2	7	4	400	......	....	85	582	....	1,067	380	84	2.70	......	145
4	...	1	......	7	2	500	......	....	80	......	....	580	......	96	1.37	......	146
2	1	1	......	d 7	2	360	......	....	99	......	....	459	......	120	.99	......	147
5	2	1	......	10	2	420	......	....	72	......	....	492	......	66	.81	......	148
1	1	1	3	8	5	308	......	....	81	931	....	1,320	344	132	2.98	......	149

c Estimated value of free rent.

d Including 1 other member.

TABLE XXVII.—CHILDREN UNDER 16 YEARS OF AGE AT WORK: AGE, DITION OF THE CHILD AND THE FAMILY, IN

PENNSYLVANIA—Continued.

Family number.	The father.		The child.								Membership of family.	
											Occupation or condition of—	
	Race and nativity.	Yrs. in U. S.	Sex.	Age.	Occupation or industry.	Days worked past year.	Earnings past year.	Mos. since beginning work.	Can read and write.	Mos. school attendance.	Father.	Mother.
150	Irish, N	.....	M.	14	Snap-up	230	$190	9	Yes.	56	Baker	Home
151	Irish, N	.....	M.	14	Carry-in	52	34	2	Yes.	63	Stonemason	Home
152	Irish, N	.....	M.	14	Carry-in	272	180	18	Yes.	63	Brakeman	Home
153	Irish, N	.....	M.	14	Snap-up	104	72	4	Yes.	64	Shipper	Home
154	Irish, N	.....	M.	14	Snap-up	104	72	4	Yes.	64	Beamtend'r	Home
155	Irish, N	.....	M.	14	Mold boy	49	45	2	Yes.	80	Teamster	Home
156	Irish, N	.....	M.	14	Carry-in	216	104	9	Yes.	56	Blacksmith	Work
157	Irish, N	.....	M.	14	Snap-up	214	150	24	Yes.	54	Teamster	Work
158	English, N	.....	M.	14	Mold boy	46	42	(a)	Yes.	63	Mechanic	Home
159	Bohem., F	27	M.	14	Carry-in	60	41	3	Yes.	56	Coke drawer	Home
160	Bohem., F	24	M.	14	Warm-in	218	143	(a)	Yes.	56	Miner	Home
161	English, F	22	M.	14	Errand boy	30	18	1	Yes.	60	Buffer	Home
162	English, F	37	M.	14	Carry-in	120	78	(a)	Yes.	48	Idle	Home
163	English, F	24	M.	14	Stick-up	100	100	4	Yes.	60	Miner	Home
164	English, F	26	M.	14	Clean-off	216	246	9	Yes.	63	Foreman	Home
165	English, F	22	M.	14	Warm-in	180	216	9	Yes.	60	Bender	Home
166	French, F	18	M.	14	Snap-up	130	130	5	Yes.	72	Laborer	Work
167	French, F	4	M.	14	Box maker	100	91	4	Yes.	54	Furnacem'n	Work
168	French, F	2	M.	14	Mold boy	205	205	8	Yes.	108	Gatherer	Home
169	French, F	25	M.	14	Snap-up	104	72	4	Yes.	64	Laborer	Home
170	French, F	21	M.	14	Mold boy	275	258	21	Yes.	54	Dead	Home
171	French, F	30	M.	14	Stick-up	50	32	2	Yes.	56	Laborer	Home
172	French, F	29	M.	14	Snap-up	208	192	10	Yes.	64	Blower	Home
173	French, F	20	M.	14	Labeler	270	191	12	Yes.	50	Teamster	Home
174	French, F	25	M.	14	Packer	138	104	6	Yes.	72	Agent	Home
175	German, F	43	M.	14	Mold boy	200	140	9	Yes.	54	Incapac	Work
176	German, F	21	M.	14	Filer	240	138	24	Yes.	60	Machinist	Work
177	German, F	25	M.	14	Stick-up	220	165	12	Yes.	50	Laborer	Home
178	German, F	20	M.	14	Crack-off	104	68	4	Yes.	65	Dead	Home
179	German, N	.....	M.	14	Carry-in	190	175	12	Yes.	45	Carpenter	Home
180	German, F	41	M.	14	Mold boy	49	45	2	Yes.	80	Blower	Home
181	German, F	20	M.	14	Stick-up	144	164	8	Yes.	63	Dead	Home
182	German, F	28	M.	14	Mold boy	80	70	4	Yes.	60	Repairer	Home
183	German, F	25	M.	14	Stick-up	100	100	5	Yes.	60	Furnacem'n	Home
184	German, F	30	M.	14	Stick-up	100	100	4	Yes.	50	Laborer	Home
185	German, F	17	M.	14	Stick-up	25	25	1	Yes.	60	Molder	Home
186	German, F	25	M.	14	Mold boy	100	66	5	Yes.	50	Furnace man.	Home
187	German, F	23	M.	14	Stick-up	150	150	6	Yes.	43	Laborer	Home
188	German, F	27	M.	14	Stick-up	144	144	7	Yes.	72	Letter carrier.	Home
189	German, F	23	M.	14	Take-off	280	280	15	Yes.	64	Carpenter	Home
190	German, F	30	M.	14	Mold boy	100	95	8	Yes.	50	Cigar maker	Home
191	German, F	20	M.	14	Take-out	180	150	12	Yes.	40	Driver	Home
192	German, F	32	M.	14	Core boy	96	76	4	Yes.	70	Idle	Home
193	German, F	40	M.	14	Core boy	158	103	7	Yes.	60	Incapac	Dead
194	German, F	27	M.	14	Carry-in	120	76	7	Yes.	24	Idle	Home
195	German, F	23	M.	14	Machine boy	250	250	11	Yes.	46	Miner	Home
196	German, F	1	M.	14	Carry-in	48	53	2	Yes.	60	Foreman	Home
197	German, F	4	M.	14	Carry-in	180	150	7	Yes.	38	Sand blaster	Home
198	German, F	21	M.	14	Crack-off	72	48	3	Yes.	35	Laborer	Home
199	German, F	28	M.	14	Crack-off	192	141	8	Yes.	30	Laborer	Home
200	German, F	38	M.	14	Carry-in	192	142	(a)	(a)	(a)	Cooper	Home
201	German, F	21	M.	14	Warm-in	285	250	(a)	(a)	(a)	Laborer	Home
202	German, F	25	M.	14	Stick-up	216	259	24	Yes.	54	Dead	Home
203	German, F	23	M.	14	Carry-in	72	54	3	Yes.	60	Laborer	Home
204	German, F	24	M.	14	Carry-in	72	54	3	Yes.	50	Laborer	Home
205	Irish, F	18	M.	14	Mold boy	160	81	8	Yes.	54	Laborer	Home
206	Irish, F	31	M.	14	Stick-up	180	148	9	Yes.	56	Dead	Home
207	Irish, F	40	M.	14	Carry-in	200	126	12	Yes.	70	Laborer	Home
208	Irish, F	20	M.	14	Washer	18	16	1	Yes.	65	Laborer	Home
209	Irish, F	20	M.	14	Carry-in	20	11	3	Yes.	70	Laborer	Dead
210	Irish, F	29	M.	14	Carry-in	60	44	30	Yes.	54	Laborer	Home

[a] Not reported.

OCCUPATION, AND EDUCATION OF THE CHILD, AND ECONOMIC CONDETAIL, FOR EACH STATE—Continued.

PENNSYLVANIA—Continued.

Membership of family.						Income of family past year.						Total earnings and income past year.	Am't retained by children 16 years and over.	Rent past year.	Per capita weekly income of family less earnings of children.		Family number.
Children of ages—				Total.	Total wage earners.	Earnings of—					Other.						
Under 10.	10 to 13.	14 and 15.	16 and over.			Father.	Mother.	Children—							Under 16.	Under 14.	
								Under 14.	14 and 15.	16 and over.							
....	....	1	4	7	6	$525	....	....	$190	$1,069	....	$1,784	$491	$168	$4.38	....	150
4	2	1	....	9	2	378	....	....	34	....	....	412	....	144	.81	....	151
1	....	1	....	4	2	720	....	....	180	....	....	900	....	132	3.46	....	152
....	....	2	2	6	3	480	....	....	72	612	....	1,164	432	120	3.50	....	153
4	2	1	1	10	3	375	....	....	72	242	....	689	....	O.H.	1.19	....	154
3	1	1	1	8	3	320	....	....	45	260	....	625	....	48	1.39	....	155
2	2	1	....	7	3	300	$240	....	104	....	....	644	....	132	1.48	....	156
3	2	1	....	8	3	306	125	....	150	....	$8	589	....	48	1.06	....	157
3	....	1	1	7	3	920	....	....	42	250	....	1,212	....	120	3.21	....	158
2	1	1	1	7	3	306	....	....	41	160	12	519	....	O.H.	1.31	....	159
4	1	1	3	11	4	330	....	....	143	138	50	661	....	84	.91	....	160
2	1	1	1	7	3	308	....	....	18	286	....	612	....	150	1.63	....	161
2	....	1	3	b 9	4	....	....	....	78	961	....	1,039	....	O.H.	2.05	....	162
....	....	1	3	b 7	5	480	....	....	100	900	300	1,780	....	O.H.	4.62	....	163
1	2	1	1	7	3	704	....	....	246	270	....	1,220	....	168	2.68	....	164
3	2	1	....	8	2	430	....	....	216	....	....	646	....	200	1.03	....	165
1	1	1	....	5	3	78	195	....	130	....	....	403	....	144	1.05	....	166
....	2	1	....	5	3	432	40	....	91	....	....	563	....	O.H.	1.82	....	167
1	....	1	....	4	2	480	....	....	205	....	8	693	....	120	2.35	....	168
....	1	1	1	5	3	234	....	....	72	342	....	648	....	O.H.	2.22	....	169
2	1	1	3	8	4	....	....	....	258	480	....	738	....	O.H.	1.15	....	170
....	....	1	1	4	3	550	....	....	32	180	10	772	....	O.H.	3.56	....	171
2	....	1	1	6	3	560	....	....	192	192	....	944	....	96	2.41	....	172
2	....	1	1	6	3	600	....	....	191	200	72	1,063	....	72	2.79	....	173
1	1	1	2	7	4	307	....	....	104	581	....	992	....	144	2.44	....	174
....	....	1	....	3	2	....	208	....	140	....	100	448	....	60	1.97	....	175
1	....	1	....	4	3	385	52	....	138	....	....	575	....	108	2.10	....	176
5	2	1	....	10	2	420	....	....	165	....	5	590	....	120	.82	....	177
3	1	1	3	9	4	....	....	....	68	648	40	756	....	O.H.	1.47	....	178
4	2	1	....	9	2	210	....	....	175	....	275	660	....	72	1.04	....	179
2	....	1	1	6	3	1,960	....	....	45	725	....	2,730	465	O.H.	8.61	....	180
1	1	1	2	6	3	....	....	....	164	656	....	820	146	O.H.	2.10	....	181
3	....	1	2	8	4	600	....	....	70	800	....	1,470	280	180	3.37	....	182
1	2	1	1	7	3	375	....	....	100	112	12	599	....	78	1.37	....	183
1	....	1	1	5	3	225	....	....	100	200	....	525	....	O.H.	1.63	....	184
1	1	1	1	6	3	639	....	....	25	110	....	774	....	78	2.40	....	185
....	....	1	....	3	2	440	....	....	66	....	....	506	....	O.H.	2.82	....	186
3	1	1	3	10	5	585	....	....	150	530	....	1,265	230	168	2.14	....	187
4	1	1	....	8	2	840	....	....	144	....	....	984	....	O.H.	2.02	....	188
5	1	1	1	10	3	780	....	....	280	275	....	1,335	....	O.H.	2.03	....	189
1	....	1	1	5	3	375	....	....	95	187	....	657	....	84	2.16	....	190
3	2	2	1	10	3	400	....	....	150	312	....	862	....	96	1.37	....	191
3	1	1	1	8	2	....	....	....	76	230	....	306	30	O.H.	.55	....	192
....	1	1	2	5	2	....	....	....	103	400	192	695	....	156	2.28	....	193
5	1	1	3	12	3	....	....	....	76	1,182	....	1,258	....	96	1.89	....	194
3	2	1	3	11	4	240	....	....	250	565	77	1,132	....	144	1.54	....	195
2	1	1	....	6	2	588	....	....	53	....	....	641	....	132	1.88	....	196
....	1	1	2	6	4	778	....	....	150	550	21	1,499	....	180	4.32	....	197
4	1	1	2	10	4	421	....	....	48	601	....	1,070	....	O.H.	1.97	....	198
4	1	1	2	10	4	525	....	....	140	489	....	1,154	....	108	1.95	....	199
....	....	1	3	6	4	200	....	....	142	1,014	....	1,356	498	156	3.89	....	200
....	....	1	1	4	3	520	....	....	250	410	....	1,180	....	O.H.	4.47	....	201
1	1	1	3	7	4	....	....	....	259	345	....	604	....	O.H.	.95	....	202
2	2	1	1	8	3	494	....	....	54	225	....	773	....	96	1.73	....	203
1	1	1	1	6	3	422	....	....	54	300	....	776	....	O.H.	2.31	....	204
....	....	1	....	3	2	340	....	....	81	....	3	424	....	96	2.20	....	205
....	....	1	4	6	4	....	....	....	148	760	15	923	....	180	2.48	....	206
....	1	1	....	4	2	285	....	....	126	....	33	444	....	O.H.	1.53	....	207
4	1	1	1	9	2	254	....	....	16	....	....	270	....	180	.54	....	208
....	....	1	3	5	4	280	....	....	11	432	....	723	....	150	2.74	....	209
2	2	1	1	8	3	279	....	....	44	216	....	539	....	144	1.19	....	210

[b] Including 1 other member.

TABLE XXVII.—CHILDREN UNDER 16 YEARS OF AGE AT WORK: AGE, DITION OF THE CHILD AND THE FAMILY, IN

PENNSYLVANIA—Continued.

Family number.	The father.		The child.								Membership of family.	
											Occupation or condition of—	
	Race and nativity.	Yrs. in U. S.	Sex.	Age.	Occupation or industry.	Days worked past year.	Earnings past year.	Mos. since beginning work.	Can read and write.	Mos. school attendance.	Father.	Mother.
211	Irish, F	25	M.	14	Stick-up	96	$72	4	Yes.	56	Night caller	Home
212	Irish, F	35	M.	14	Stick-up	144	96	10	Yes.	60	Away	Home
213	Irish, F	25	M.	14	Spare-boy	234	138	10	Yes.	56	Teamster	Home
214	Irish, F	20	M.	14	Stick-up	240	136	12	Yes.	60	Watchman.	Home
215	Irish, F	22	M.	14	Carry-in	234	152	9	Yes.	63	Conductor.	Home
216	Irish, F	30	M.	14	Stick-up	18	18	2	Yes.	61	Furnace man.	Home
217	Irish, F	25	M.	14	Carry-in	230	150	24	Yes.	48	Laborer	Home
218	Irish, F	30	M.	14	Stick-up	120	120	12	Yes.	60	Laborer	Home
219	Irish, F	27	M.	14	Carry-in	296	200	14	Yes.	63	Watchman.	Home
220	Irish, F	26	M.	14	Carry-in	72	47	3	Yes.	54	Laborer	Home
221	Irish, F	17	M.	14	Carry-in	129	84	9	Yes.	49	Laborer	Home
222	Irish, F	20	M.	14	Spare boy	180	117	9	Yes.	56	Bricklayer.	Home
223	Irish, F	20	M.	14	Mold boy	46	41	(*a*)	Yes.	70	Miner	Home
224	Irish, F	35	M.	14	Carry-in	40	32	(*a*)	(*a*)	(*a*)	Engineer	Home
225	Irish, F	22	M.	14	Mold-boy	49	45	3	Yes.	80	Dead	Home
226	Irish, F	20	M.	14	Wrapper	74	42	3	Yes.	72	Dead	Work
227	Irish, F	25	M.	14	Stick-up	300	250	12	Yes.	80	Dead	Work
228	Irish, F	20	M.	14	Carry-in	100	82	4	Yes.	49	Dead	Work
229	Irish, F	20	M.	14	Carry-in	300	150	15	Yes.	63	Dead	Work
230	Italian, F	24	M.	14	Box maker	88	58	4	Yes.	63	Laborer	Work
231	Italian, F	20	M.	14	Stick-up	300	250	18	Yes.	56	Laborer	Work
232	Italian, F	10	M.	14	Carry-in	224	145	9	Yes.	48	Peddler	Work
233	Italian, F	25	M.	14	Crack-off	228	148	9	Yes.	64	Miner	Home
234	Italian, F	10	M.	14	Carry-in	220	143	24	Yes.	48	Peddler, fruit.	Home
235	Italian, F	22	M.	14	Snap-up	234	234	36	Yes.	40	Section hand.	Home
236	Italian, F	14	M.	14	Crack-off	88	78	4	Yes.	72	Peddler, fruit.	Home
237	Italian, F	10	M.	14	Clean-off	186	97	12	Yes.	63	Laborer	Home
238	Lith., F	19	M.	14	Clean-off	198	149	(*a*)	(*a*)	(*a*)	Laborer	Work
239	Lith., F	23	M.	14	Boxmaker	138	112	7	Yes.	72	Molder	Home
240	Polish, F	17	M.	14	Carry-in	80	60	4	Yes.	70	Cobbler	Work
241	Polish, F	25	M.	14	Mold boy	68	52	(*a*)	(*a*)	(*a*)	Laborer	Home
242	Polish, F	12	M.	14	Carry-in	208	125	12	Yes.	48	Miner	Home
243	Polish, F	17	M.	14	Carry-in	50	45	2	Yes.	80	Laborer	Home
244	Polish, F	26	M.	14	Stick-up	220	200	12	Yes.	50	Street sweeper.	Home
245	Polish, F	20	M.	14	Mold boy	137	125	(*a*)	Yes.	60	Furnace man.	Home
246	Polish, F	19	M.	14	Mold boy	44	40	(*a*)	Yes.	60	Shearer's helper.	Home
247	Polish, F	18	M.	14	Carry-in	44	40	2	Yes.	60	Laborer	Home
248	Polish, F	19	M.	14	Mold boy	250	197	12	Yes.	50	Fireman	Home
249	Polish, F	18	M.	14	Stick-up	235	267	24	Yes.	54	Laborer	Home
250	Polish, F	27	M.	14	Stick-up	216	246	12	Yes.	54	Laborer	Home
251	Polish, F	22	M.	14	Carry-in	80	80	4	Yes.	60	Laborer	Home
252	Polish, F	16	M.	14	Mold boy	244	274	12	Yes.	54	Fireman	Home
253	Polish, F	20	M.	14	Mold boy	80	80	4	Yes.	70	Acid works.	Home
254	Polish, F	17	M.	14	Mold boy	100	100	4	Yes.	54	Dryer	Home
255	Polish, F	20	M.	14	Carry-over	80	60	4	Yes.	60	Laborer	Home
256	Polish, F	12	M.	14	Carry-over	165	151	7	Yes.	50	Watchman.	Home
257	Polish, F	18	M.	14	Stick-up	80	66	4	Yes.	60	Laborer	Home
258	Polish, F	15	M.	14	Stick-up	80	66	4	Yes.	60	Laborer	Home
259	Polish, F	21	M.	14	Carry-in	50	37	3	Yes.	70	Mold cleaner	Home
260	Polish, F	20	M.	14	Stick-up	80	66	4	Yes.	60	Laborer	Home
261	Polish, F	8	M.	14	Machine boy	200	200	24	Yes.	40	Dead	Home
262	Polish, F	18	M.	14	Machine boy	90	90	4	Yes.	60	Dead	Home
263	Polish, F	1	M.	14	Stick-up	100	100	4	Yes.	70	Laborer	Home
264	Polish, F	2	M.	14	Carry-in	260	260	12	Yes.	64	Dead	Home
265	Polish, F	17	M.	14	Mold boy	260	260	12	Yes.	44	Laborer	Home
266	Polish, F	17	M.	14	Clean-off	100	100	4	Yes.	60	Laborer	Home

[a] Not reported.

[b] Including 1 other member.

OCCUPATION, AND EDUCATION OF THE CHILD, AND ECONOMIC CON- DETAIL, FOR EACH STATE—Continued.

PENNSYLVANIA—Continued.

Membership of family.						Income of family past year.						Total earnings and income past year.	Am't retained by children 16 years and over.	Rent past year.	Per capita weekly income of family less earnings of children.		Family number.
Children of ages—				Total.	Total wage earners.	Earnings of—					Other.						
						Father.	Mother.	Children—									
Under 10.	10 to 13.	14 and 15.	16 and over.					Under 14.	14 and 15.	16 and over.					Under 16.	Under 14.	
1	2	1	3	9	5	$728	......	....	$72	$948	......	$1,748	$508	$120	$3.58	......	211
....	2	1	5	9	6	300	......	....	96	1,248	......	1,644	220	O.H.	3.31	......	212
....	1	1	1	5	3	624	......	....	138	99	$20	881	......	96	2.86	......	213
1	1	1	1	6	3	480	......	....	136	324	......	940	204	144	2.58	......	214
6	2	1	1	12	3	960	......	....	152	225	......	1,337	......	168	1.90	......	215
3	1	1	2	[b]10	4	535	......	....	18	300	......	853	......	150	1.61	......	216
....	...	1	.....	3	2	450	......	....	150	......	......	600	......	48	2.88	......	217
3	2	2	1	10	3	540	......	....	120	270	......	930	......	156	1.56	......	218
....	2	1	1	6	3	624	......	....	200	202	......	1,026	......	O.H.	2.65	......	219
2	...	1	.....	5	2	300	......	....	47	......	10	357	......	96	1.19	......	220
....	1	1	.....	4	2	75	......	....	84	......	......	159	......	132	.36	......	221
3	2	1	2	10	4	594	......	....	117	384	......	1,095	......	156	1.88	......	222
1	1	1	.....	5	2	500	......	....	41	......	350	891	......	69	3.27	......	223
3	1	1	.....	7	2	564	......	....	32	......	29	625	......	O.H.	1.63	......	224
....	1	1	1	4	2	......	......	....	45	638	140	823	......	108	3.74	......	225
2	2	1	.....	6	2	......	$208	....	42	......	......	250	......	66	.67	......	226
3	1	1	.....	6	2	......	144	....	250	......	......	394	......	96	.46	......	227
....	1	1	1	4	3	......	165	....	82	240	......	487	......	30	1.95	......	228
1	2	1	.....	5	2	......	260	....	150	......	......	410	......	108	1.00	......	229
4	1	2	.....	9	3	240	156	....	58	......	......	454	......	96	.85	......	230
5	1	1	.....	9	3	300	154	....	250	......	......	704	......	60	.97	......	231
6	1	1	.....	10	3	260	150	....	145	......	......	555	......	96	.79	......	232
2	...	1	2	7	3	168	......	....	148	120	......	436	......	54	.79	......	233
5	1	1	.....	9	2	614	......	....	143	......	......	757	......	60	1.31	......	234
1	2	1	1	7	3	434	......	....	234	264	......	932	......	O.H.	1.92	......	235
1	...	1	2	6	3	939	......	....	78	511	......	1,528	199	360	4.65	......	236
2	1	1	.....	6	2	369	......	....	97	......	......	466	......	96	1.18	......	237
....	1	1	2	6	4	431	16	....	149	105	1	702	......	144	1.77	......	238
2	2	1	.....	7	2	1,050	......	....	112	......	......	1,162	......	108	2.88	......	239
1	...	1	2	6	5	30	45	....	60	506	......	641	50	72	1.86	......	240
1	1	1	1	6	3	565	......	....	52	170	......	787	144	96	2.36	......	241
2	1	1	1	7	2	420	......	....	125	......	......	545	......	78	1.15	......	242
....	...	1	2	5	4	300	......	....	45	500	10	855	......	O.H.	3.12	......	243
....	...	1	.....	3	2	525	......	....	200	......	72	797	......	O.H.	3.83	......	244
....	2	1	2	[b]8	4	395	......	....	125	760	195	1,475	......	O.H.	3.25	......	245
1	1	1	2	7	4	612	......	....	40	860	......	1,512	60	O.H.	4.04	......	246
....	...	1	1	4	3	270	......	....	40	140	60	510	......	O.H.	2.26	......	247
4	1	1	.....	8	2	472	......	....	197	......	......	669	......	O.H.	1.13	......	248
3	2	1	2	10	3	525	......	....	267	104	......	896	......	O.H.	1.21	......	249
....	1	1	2	6	4	218	......	....	246	753	240	1,457	277	O.H.	3.88	......	250
....	...	1	1	4	3	200	......	....	80	125	......	405	......	84	1.56	......	251
3	1	1	2	9	4	486	......	....	274	458	......	1,218	......	O.H.	2.02	......	252
4	1	1	1	9	3	520	......	....	80	250	......	850	......	76	1.65	......	253
....	1	1	.....	4	2	412	......	....	100	......	12	524	......	75	2.04	......	254
2	1	1	2	8	2	250	......	....	60	......	......	310	......	84	.60	......	255
....	1	1	.....	4	2	405	......	....	151	......	......	556	......	72	1.95	......	256
3	...	1	.....	6	2	360	......	....	66	......	......	426	......	84	1.15	......	257
....	1	1	.....	4	2	330	......	....	66	......	......	396	......	240	1.59	......	258
....	1	1	.....	4	2	585	......	....	37	......	......	622	......	84	2.81	......	259
4	1	1	1	9	3	266	......	....	66	166	......	498	......	84	.92	......	260
....	1	1	.....	3	1	......	......	....	200	......	19	219	......	60	.12	......	261
4	1	1	2	9	3	......	......	....	90	275	60	425	......	[c]60	.72	......	262
....	2	1	.....	5	2	300	......	....	100	......	5	405	......	69	1.17	......	263
3	1	1	1	7	2	......	......	....	260	260	60	580	......	[c]60	.88	......	264
1	2	1	.....	6	2	580	......	....	260	......	......	840	......	72	1.86	......	265
3	1	1	1	8	3	507	......	....	100	260	43	910	......	72	1.95	......	266

[c] Estimated value of free rent.

TABLE XXVII.—CHILDREN UNDER 16 YEARS OF AGE AT WORK: AGE, DITION OF THE CHILD AND THE FAMILY, IN

PENNSYLVANIA—Continued.

Family number.	The father.		The child.									Membership of family. Occupation or condition of—	
	Race and nativity.	Yrs. in U. S.	Sex.	Age.	Occupation or industry.	Days worked past year.	Earnings past year.	Mos. since beginning work.	Can read and write.	Mos. school attendance.		Father.	Mother.
267	Polish, F.	18	M.	14	Stick-up	100	$100	4	Yes.	60		Driver	Home
268	Polish, F.	14	M.	14	Machine boy	300	325	18	Yes.	45		Laborer	Home
269	Polish, F.	16	M.	14	Blow-up	300	347	36	Yes.	18		Laborer	Home
270	Polish, F.	15	M.	14	Machine boy	225	220	16	Yes.	30		Laborer	Home
271	Polish, F.	25	M.	14	Carry-in	150	75	6	Yes.	50		Laborer	Home
272	Polish, F.	18	M.	14	Machine boy	290	220	12	Yes.	50		Miner	Home
273	Polish, F.	17	M.	14	Mold boy	280	200	12	Yes.	50		Shearer	Home
274	Polish, F.	18	M.	14	Snap-up	182	168	9	Yes.	72		Laborer	Home
275	Polish, F.	16	M.	14	Stick-up	80	64	4	Yes.	50		Laborer	Home
276	Polish, F.	18	M.	14	Carry-over	100	95	4	Yes.	80		Molder	Home
277	Polish, F.	20	M.	14	Stick-up	100	85	4	Yes.	40		Mill boss	Home
278	Polish, F.	24	M.	14	Mold boy	200	183	24	Yes.	40		Lead worker	Home
279	Polish, F.	25	M.	14	Carry-over	175	135	6	Yes.	60		Laborer	Home
280	Polish, F.	10	M.	14	Mold boy	264	330	24	Yes.	40		Leersman	Home
281	Polish, F.	18	M.	14	Warm-in	56	56	3	Yes.	45		Laborer	Home
282	Polish, F.	18	M.	14	Carry-in	100	81	5	Yes.	45		Dead	Home
283	Polish, F.	23	M.	14	Crack-off	99	79	5	Yes.	45		Laborer	Home
284	Polish, F.	19	M.	14	Clean-off	72	58	3	Yes.	54		Laborer	Home
285	Polish, F.	1	M.	14	Core boy	144	115	6	Yes.	45		Deserter	Home
286	Polish, F.	3	M.	14	Snap-up	176	144	9	Yes.	50		Laborer	Home
287	Polish, F.	20	M.	14	Carry-in	9	5	1	Yes.	56		Saloon keeper.	Home
288	Polish, F.	10	M.	14	Dye-house hand.	150	87	6	Yes.	40		Laborer	Home
289	Russian, F.	19	M.	14	Stick-up	192	192	12	Yes.	30		Dead	Home
290	Russian, F.	22	M.	14	Mold cleaner	220	198	9	Yes.	50		Laborer	Home
291	Russian, F.	23	M.	14	Take-out	162	135	7	Yes.	54		Driver	Home
292	Russian, F.	20	M.	14	Mold boy	150	125	6	Yes.	40		Laborer	Home
293	Scand., F.	27	M.	14	Mold boy	96	120	16	Yes.	56		Laborer	Home
294	Scand., F.	19	M.	14	Stick-up	96	58	4	Yes.	64		Laborer	Home
295	Scand., F.	26	M.	14	Snap-up	78	72	3	Yes.	72		Carpenter	Home
296	English, F.	26	M.	14	Carry-in	290	180	11	Yes.	63		Laborer	Home
297	English, F.	22	M.	14	Carry-in	30	27	(c)	Yes.	63		Dead	Home
298	Slav, F.	22	M.	14	Carry-in	97	58	4	Yes.	48		Laborer	Home
299	Slav, F.	16	M.	14	Box maker	78	39	(c)	(c)	(c)		Laborer	Home
300	Slav, F.	19	M.	14	Carry-in	76	46	3	Yes.	69		Miner	Dead.
301	Slav, F.	20	M.	14	Clean-off	300	300	12	Yes.	40		Driver	Home
302	Slav, F.	25	M.	14	Carry-in	60	48	3	Yes.	56		Coke drawer	Home
303	Slav, F.	18	M.	14	Box maker	50	35	2	Yes.	50		Coke drawer	Home
304	Slav, F.	13	M.	14	Carry-in	76	46	3	Yes.	63		Miner	Home
305	Slav, F.	9	M.	14	Crack-off	190	133	8	Yes.	40		Miner	Home
306	Slav, F.	26	M.	14	Carry-in	156	93	6	Yes.	40		Miner	Home
307	Slovak, F.	20	M.	14	Stick-up	120	120	5	No.	18		Laborer	Home
308	Slovak, F.	15	M.	14	Stick-up	78	78	4	Yes.	72		Laborer	Home
309	Slovak, F.	24	M.	14	Stick-up	217	217	18	Yes.	45		Miner	Home
310	Slovak, F.	20	M.	14	Carry-in	144	115	6	Yes.	45		Laborer	Home
311	Slovak, F.	23	M.	14	Mold boy	96	76	4	Yes.	56		Laborer	Home
312	Welsh, F.	(b)	M.	14	Carry-in	44	40	(c)	Yes.	54		Dead	Home
313	Welsh, F.	32	M.	14	Carry-in	40	25	6	Yes.	62		Laborer	Home
314	American		M.	14	Carry-in	12	9	1	Yes.	49		Driver	Home
			M.	14	Newsboy	120	20	6	Yes.	64			
315	English, F.	39	M.	14	Carry-in	244	220	12	Yes.	54		Dead	Work
			M.	14	Stick-up	244	270	24	Yes.	50			
316	American		F.	14	Wiper	200	100	8	Yes.	81		Laborer	Home
317	American		F.	14	Wiper	142	71	7	Yes.	64		Laborer	Home
318	American		F.	14	Dipper	242	181	12	Yes.	54		Laborer	Home
319	American		F.	14	Selector	60	43	4	Yes.	56		Truckman.	Home
320	American		F.	14	Selector	96	96	4	Yes.	48		Engineer	Home
321	American		F.	14	Presser, brass works.	30	23	1	Yes.	36		Laborer	Home

a Including 1 other member. b Amount of life insurance received.

OCCUPATION, AND EDUCATION OF THE CHILD, AND ECONOMIC CONDETAIL, FOR EACH STATE—Continued.

PENNSYLVANIA—Continued.

Membership of family.						Income of family past year.						Total earnings and income past year.	Am't retained by children 16 years and over.	Rent past year.	Per capita weekly income of family less earnings of children		Family number.
Children of ages—				Total.	Total wage earners.	Earnings of—					Other.						
Under 10.	10 to 13.	14 and 15.	16 and over.			Father.	Mother.	Children— Under 14.	Children— 14 and 15.	Children— 16 and over.					Under 16.	Under 14.	
1	...	1	3	a 8	4	$300	......	....	$100	$720	....	$1,120	......	$76	$2.45	......	267
1	1	1	1	6	3	360	......	....	325	500	$84	1,269	......	O. H.	3.03	......	268
3	2	1	1	9	3	507	......	....	347	750	....	1,604	......	O. H.	2.69	......	269
2	1	2	.....	7	2	700	......	....	220	......	....	920	......	O. H.	1.92	......	270
....	...	1	1	4	3	375	......	....	75	250	....	700	......	O. H.	3.00	......	271
3	2	1	.....	8	2	262	......	....	220	......	....	482	......	O. H.	.63	......	272
2	1	1	4	10	6	450	......	....	200	1,730	....	2,380	$940	96	4.19	......	273
1	2	1	.....	6	2	462	......	....	168	......	120	750	......	O. H.	1.87	......	274
2	1	1	1	7	3	375	......	....	64	280	....	719	......	84	1.80	......	275
5	1	1	.....	9	2	750	......	....	95	......	....	845	......	84	1.60	......	276
4	...	1	3	10	4	600	......	....	85	800	....	1,485	350	102	2.69	......	277
....	1	1	2	6	3	410	......	....	183	900	....	1,493	400	120	4.20	......	278
1	1	1	3	8	5	150	......	....	135	1,350	25	1,660	840	108	3.67	......	279
....	...	2	1	5	3	450	......	....	330	330	....	1,110	......	O. H.	3.00	......	280
2	1	1	2	8	4	322	......	....	56	671	....	1,049	......	144	2.39	......	281
....	...	1	3	5	3	....	......	....	81	574	....	655	......	O. H.	2.21	......	282
2	2	1	3	10	5	578	......	....	79	1,013	....	1,670	156	144	3.06	......	283
3	...	1	.....	6	2	672	......	....	58	......	....	730	......	84	2.15	......	284
....	...	1	1	3	2	....	......	....	115	108	36	259	......	108	.92	......	285
5	2	1	.....	10	2	400	......	....	144	......	6	550	......	36	.78	......	286
3	1	1	.....	7	2	1,000	......	....	5	......	....	1,005	......	360	2.75	......	287
1	1	1	2	7	4	274	......	....	87	552	90	1,003	......	O.H.	2.52	......	288
4	2	1	2	10	3	....	......	....	192	594	b 1,000	1,786	......	78	3.07	......	289
2	1	1	1	7	3	320	......	....	198	300	....	818	......	84	1.70	......	290
2	...	1	.....	5	2	256	......	....	135	......	4	395	......	96	1.00	......	291
3	...	1	1	7	3	600	......	....	125	240	173	1,138	84	O.H.	2.78	......	292
1	1	1	.....	5	2	300	......	....	120	......	....	420	......	O.H.	1.15	......	293
2	...	1	2	7	4	180	......	....	58	354	....	592	105	O.H.	1.47	......	294
2	1	1	4	10	5	405	......	....	72	1,178	....	1,655	811	O.H.	3.04	......	295
3	2	1	1	9	3	346	......	....	180	250	50	826	......	108	1.38	......	296
....	...	1	2	4	3	....	......	....	27	675	....	702	......	120	3.25	......	297
4	1	1	2	10	3	319	......	....	58	109	64	550	......	60	.95	......	298
2	2	1	2	9	4	477	......	....	39	441	490	1,447	......	294	3.01	......	299
4	1	1	1	8	3	281	......	....	46	172	....	499	......	60	1.09	......	300
3	...	1	.....	6	2	360	......	....	300	......	36	696	......	120	1.27	......	301
2	3	1	.....	8	2	294	......	....	48	......	52	394	......	60	.83	......	302
3	1	1	3	10	5	200	......	....	35	312	52	599	......	O.H.	1.08	......	303
....	...	1	.....	3	2	280	......	....	46	......	....	326	......	84	1.79	......	304
4	...	1	.....	7	2	302	......	....	133	......	....	435	......	39	.83	......	305
2	1	1	.....	6	2	412	......	....	93	......	45	550	......	84	1.46	......	306
....	...	1	.....	3	2	397	......	....	120	......	....	517	......	O.H.	2.54	......	307
4	...	1	2	9	3	498	......	....	78	344	....	920	......	144	1.80	......	308
1	2	1	3	9	5	722	......	....	217	975	....	1,914	......	O.H.	3.63	......	309
1	...	1	1	5	3	153	......	....	115	251	160	679	......	O.H.	2.17	......	310
1	1	1	1	6	3	356	......	....	76	144	98	674	......	300	1.92	......	311
2	1	1	3	a 9	4	....	......	....	40	1,100	90	1,230	490	72	2.54	......	312
4	...	1	.....	7	2	262	......	....	25	......	21	308	......	72	.78	......	313
....	1	2	1	6	3	518	......	....	29	......	27	574	......	O.H.	1.75	......	314
1	...	2	2	6	4	....	$117	....	495	158	....	770	......	180	.88	......	315
....	...	1	4	7	5	215	......	....	100	515	35	865	......	O.H.	2.10	......	316
3	...	1	.....	d 8	2	252	......	....	71	......	57	380	......	O.H.	.74	......	317
2	2	1	2	9	4	320	......	....	181	296	40	837	......	O.H.	1.40	......	318
4	1	1	2	10	4	535	......	....	43	153	....	731	11	60	1.32	......	319
3	2	1	.....	8	2	679	......	....	96	......	....	775	......	O.H.	1.63	......	320
1	2	1	2	8	4	40	......	....	23	590	....	652	......	180	1.51	......	321

c Not reported.

d Including 2 other members.

TABLE XXVII.—CHILDREN UNDER 16 YEARS OF AGE AT WORK: AGE, DITION OF THE CHILD AND THE FAMILY, IN

PENNSYLVANIA—Continued.

Family number.	The father.		The child.								Membership of family.	
											Occupation or condition of—	
	Race and nativity.	Yrs. in U. S.	Sex.	Age.	Occupation or industry.	Days worked past year.	Earnings past year.	Mos. since beginning work.	Can read and write.	Mos. school attendance.	Father.	Mother.
322	American...	.....	F.	14	Wrapper....	229	$126	12	Yes.	50	Driver.....	Home
323	Irish, F.....	(b)	F.	14	Wiper.......	242	121	11	Yes.	24	Dead......	Work
324	Bohem., F..	27	F.	14	Grinder.....	238	232	22	Yes.	58	Miner......	Home
325	Bohem., F..	21	F.	14	Grinder.....	220	110	8	Yes.	56	Storekeeper	Home
326	Bohem., F..	21	F.	14	Bander.....	218	109	20	Yes.	72	Miner......	Home
327	Bohem., F..	5	F.	14	Wiper......	36	19	2	Yes.	40	Dead......	Home
328	Croatian, F..	15	F.	14	Selector.....	196	147	38	Yes.	36	Laborer....	Home
329	English, F..	25	F.	14	Take-off.....	75	49	4	Yes.	50	Agent, ins..	Home
330	English, F..	21	F.	14	Stamper....	283	189	18	Yes.	72	Carpenter..	Home
331	French, F...	3	F.	14	Wrapper....	100	67	4	Yes.	40	Miner......	Work
332	French, F...	3	F.	14	Wrapper....	75	50	3	Yes.	50	Blower.....	Home
333	French, F...	14	F.	14	Wrapper....	100	66	4	Yes.	60	Incapac....	Home
334	French, F...	5	F.	14	Wrapper....	25	16	1	Yes.	60	Miner......	Home
335	French, F...	9	F.	14	Cut-off......	270	224	18	Yes.	60	Welder.....	Home
336	German, F..	18	F.	14	Painter.....	120	60	5	Yes.	54	Laborer....	Work
337	German, F..	18	F.	14	Capper......	100	50	4	Yes.	40	Dead.......	Work
338	German, F..	22	F.	14	Wrapper....	75	38	3	Yes.	56	Dead.......	Work
339	German, F..	15	F.	14	Selector.....	64	64	15	Yes.	41	(b)	Home
340	German, F..	23	F.	14	Selector.....	90	45	4	Yes.	39	Laborer....	Home
341	German, F..	26	F.	14	Cut-off......	260	182	12	Yes.	60	Incapac....	Home
342	German, F..	30	F.	14	Cash girl, grocery.	307	312	12	Yes.	54	Laborer....	Home
343	German, F..	6	F.	14	Washer.....	125	82	24	Yes.	40	Printer.....	Home
344	German, F..	20	F.	14	Painter.....	225	136	9	Yes.	65	Grinder....	Home
345	German, F..	16	F.	14	Capper......	72	36	3	Yes.	80	Laborer....	Home
346	Irish, F.....	20	F.	14	Wiper.......	230	115	9	Yes.	80	Laborer....	Home
347	Polish, F....	19	F.	14	Capper......	100	50	5	Yes.	60	Laborer....	Work
348	Polish, F....	20	F.	14	Wrapper....	154	89	7	Yes.	30	Deserter...	Work
349	Polish, F....	15	F.	14	Sand blaster	260	158	(b)	(b)	(b)	Machinist..	Home
350	Polish, F....	23	F.	14	Wiper.......	205	102	8	Yes.	38	Laborer....	Home
351	Polish, F....	17	F.	14	Wiper.......	168	84	8	Yes.	40	Dead.......	Home
352	Polish, F....	27	F.	14	Smoother...	240	144	14	Yes.	30	Coke drawer.	Home
353	Polish, F....	17	F.	14	Wiper.......	128	64	5	Yes.	76	Coke drawer.	Home
354	Polish, F....	25	F.	14	Wiper.......	52	26	2	Yes.	36	Dead.......	Home
355	Polish, F....	17	F.	14	Wrapper....	102	51	4	Yes.	54	Dead.......	Home
356	Polish, F....	16	F.	14	Wiper.......	116	58	5	Yes.	64	Miner......	Home
357	Polish, F....	19	F.	14	Cut-off......	235	117	10	Yes.	10	Miner......	Home
358	Polish, F....	5	F.	14	Cut-off......	242	121	13	Yes.	64	Laborer....	Home
359	Polish, F....	19	F.	14	Floor help...	238	119	17	Yes.	64	Coke drawer.	Home
360	Polish, F....	18	F.	14	Wiper.......	36	18	2	Yes.	60	Coke drawer.	Home
361	Polish, F....	20	F.	14	Wiper.......	50	25	2	Yes.	48	Miner......	Home
362	Polish, F....	19	F.	14	Chipper.....	100	50	4	Yes.	60	Dead.......	Home
363	Polish, F....	5	F.	14	Capper, salts	24	12	1	No..	36	Fireman...	Home
364	Polish, F....	14	F.	14	Capper......	30	15	3	Yes.	45	Laborer....	Home
365	Polish, F. ..	16	F.	14	Chipper.....	100	50	4	Yes.	60	Laborer....	Home
366	Polish, F....	26	F.	14	Chipper.....	50	25	2	Yes.	50	Laborer....	Home
367	Polish, F....	17	F.	14	Etcher, needle.	121	61	5	Yes.	27	Coke drawer.	Home
368	Polish, F....	27	F.	14	Floor help...	96	52	4	Yes.	65	Laborer....	Home
369	Polish, F....	21	F.	14	Glass........	72	36	3	Yes.	30	Laborer....	Home
370	Polish, F....	34	F.	14	Wrapper....	66	33	3	Yes.	50	Laborer....	Home
371	Slav, F.....	8	F.	14	Painter.....	250	125	24	Yes.	63	Laborer....	Home
372	Slav, F.....	18	F.	14	Wrapper....	150	100	6	Yes.	60	Miner......	Home
373	Slav, F.....	22	F.	14	Wiper......	42	21	2	Yes.	64	Laborer....	Home
374	Slav, F.....	20	F.	14	Selector.....	240	120	18	Yes.	50	Miner......	Home
375	Slav, F.....	17	F.	14	Wiper.......	101	50	4	Yes.	72	Miner......	Home
376	Slav, F.....	26	F.	14	Wiper.......	30	15	1	Yes.	62	Shoemaker.	Home
377	Slav, F.....	15	F.	14	Cut-off......	176	88	7	Yes.	64	Laborer....	Home
378	Slovak, F...	27	F.	14	Grinder.....	24	18	1	Yes.	50	Laborer....	Home

[a] Including 1 other member. [b] Not reported. [c] Estimated value of free rent.

OCCUPATION, AND EDUCATION OF THE CHILD, AND ECONOMIC CONDETAIL, FOR EACH STATE—Continued.

PENNSYLVANIA—Continued.

Membership of family.						Income of family past year.						Total earnings and income past year.	Am't retained by children 16 years and over.	Rent past year.	Per capita weekly income of family less earnings of children.		Family number.
Children of ages—				Total.	Total wage earners.	Earnings of—					Other.						
Under 10.	10 to 13.	14 and 15.	16 and over.			Father.	Mother.	Children—							Under 16.	Under 14.	
								Under 14.	14 and 15.	16 and over.							
3	1	1	1	a 9	3	$366	......	....	$126	$520	......	$1,012	$260	$180	$1.89	......	322
....	...	1	......	2	2	......	$163	....	121	......	$45	329	......	c 45	2.00	......	323
2	...	1	4	9	5	112	......	....	232	452	65	861	......	O.H.	1.34	......	324
....	1	1	1	5	3	260	......	....	110	123	100	593	......	O.H.	1.86	......	325
4	1	1	1	9	3	540	......	....	109	172	27	848	......	O.H.	1.58	......	326
2	...	1	1	5	2	......	......	....	19	461	......	480	......	96	1.77	......	327
2	2	1	1	8	3	525	......	....	147	156	......	828	......	228	1.64	......	328
1	2	1	......	6	2	468	......	....	49	......	......	517	......	O.H.	1.50	......	329
2	2	1	1	8	3	646	......	....	189	452	20	1,307	......	O.H.	2.69	......	330
2	2	1	1	8	4	384	50	....	67	100	......	601	......	108	1.28	......	331
....	1	1	1	5	3	666	......	....	50	187	......	903	......	120	3.28	......	332
....	...	1	1	4	2	......	......	....	66	52	73	191	......	O.H.	.60	......	333
....	...	1	1	4	3	360	......	....	16	360	......	736	......	120	3.46	......	334
2	...	1	......	5	2	475	......	....	224	......	52	751	......	O.H.	2.03	......	335
2	2	1	......	7	3	288	26	....	60	......	......	374	......	O.H.	.86	......	336
....	1	1	3	6	5	......	125	....	50	1,343	......	1,518	468	120	4.70	......	337
2	...	1	1	5	3	......	510	....	38	115	35	698	......	O.H.	2.54	......	338
4	1	1	1	9	3	970	......	....	64	153	60	1,247	......	150	2.53	......	339
....	...	1	2	5	4	425	......	....	45	398	......	868	......	O.H.	3.17	......	340
1	...	1	1	5	2	......	......	....	182	367	......	549	......	O.H.	1.41	......	341
....	1	1	2	6	4	190	......	....	312	476	......	978	76	120	2.13	......	342
3	2	1	1	9	3	625	......	....	82	124	8	839	......	156	1.62	......	343
3	1	1	2	9	4	500	......	....	136	528	......	1,164	28	84	2.20	......	344
1	2	1	4	10	5	336	......	....	36	476	......	848	......	144	1.56	......	345
4	1	1	......	8	2	221	......	....	115	......	27	363	......	66	.60	......	346
2	2	1	1	8	4	630	39	....	50	273	......	992	3	72	2.26	......	347
....	...	1	......	2	2	......	108	....	89	......	17	214	......	84	1.20	......	348
....	2	1	1	6	3	495	......	....	158	637	......	1,290	481	96	3.63	......	349
3	1	1	3	10	5	364	......	....	102	604	60	1,130	......	O.H.	1.98	......	350
2	1	1	2	7	3	......	......	....	84	480	20	584	......	84	1.37	......	351
3	...	1	1	7	3	d 540	......	....	144	(e)	45	729	(b)	84	1.61	......	352
1	1	1	2	7	4	200	......	....	64	183	......	447	......	84	1.05	......	353
....	...	1	2	4	3	......	......	....	26	852	20	898	......	84	4.19	......	354
3	...	1	3	8	3	......	......	....	51	455	f 245	751	......	78	1.68	......	355
3	2	1	2	10	4	252	......	....	58	293	......	603	......	96	1.05	......	356
5	...	1	......	8	2	233	......	....	117	......	10	360	......	48	.58	......	357
5	1	1	1	10	3	386	......	....	121	245	37	789	......	84	1.28	......	358
....	2	1	2	7	4	323	......	....	119	607	10	1,059	......	66	2.58	......	359
5	1	1	1	10	3	332	......	....	18	218	......	568	......	84	1.06	......	360
....	1	1	1	5	3	298	......	....	25	212	10	545	......	84	2.00	......	361
....	1	1	......	3	1	......	......	....	50	......	80	130	......	c 72	.51	......	362
5	1	1	......	9	2	645	......	....	12	......	......	657	......	68	1.38	......	363
3	...	1	......	6	2	432	......	....	15	......	......	447	......	O.H.	1.38	......	364
1	1	1	2	7	4	450	......	....	50	1,220	......	1,720	840	76	4.59	......	365
1	1	1	1	6	2	187	......	....	25	......	......	212	......	78	.60	......	366
3	2	1	......	8	2	306	......	....	61	......	20	387	......	84	.78	......	367
2	1	1	1	7	3	77	......	....	52	226	130	485	......	84	1.19	......	368
2	1	1	1	7	3	392	......	....	36	44	......	472	10	72	1.20	......	369
1	1	1	1	6	3	466	......	....	33	177	......	676	......	72	2.06	......	370
2	1	1	1	7	3	240	......	....	125	339	12	716	......	O.H.	1.62	......	371
4	1	1	2	10	4	660	......	....	100	470	......	1,230	......	O.H.	2.17	......	372
1	1	1	2	7	3	252	......	....	21	156	......	429	......	O.H.	1.12	......	373
2	2	1	1	8	3	181	......	....	120	122	24	447	......	54	.79	......	374
1	2	1	1	7	3	250	......	....	50	624	80	1,004	......	O.H.	2.62	......	375
....	...	1	......	3	2	40	......	....	15	......	315	370	......	O.H.	2.28	......	376
....	...	1	2	5	4	210	......	....	88	539	......	837	......	84	2.88	......	377
2	1	1	3	9	4	554	......	....	18	846	6	1,424	......	180	3.00	......	378

[d] Including earnings of children 16 and over.

[e] Included in earnings of father.

[f] Including $200 life insurance received.

TABLE XXVII.—CHILDREN UNDER 16 YEARS OF AGE AT WORK: AGE, DITION OF THE CHILD AND THE FAMILY, IN

PENNSYLVANIA—Continued.

Family number.	The father.		The child.								Membership of family.	
	Race and nativity.	Yrs. in U. S.	Sex.	Age.	Occupation or industry.	Days worked past year.	Earnings past year.	Mos. since beginning work.	Can read and write.	Mos. school attendance.	Occupation or condition of—	
											Father.	Mother.
379	Welsh, F	34	F.	14	Cut-off	207	$142	16	Yes	50	Machinist	Home
380	Polish, F	22	M.	14	Stick-up	80	64	4	Yes	60	Laborer	Home
			F.	14	Cook, candy	70	30	3	Yes	60		
381	Slovak, F	20	M.	14	Carry-in	76	58	5	Yes	63	Laborer	Home
			F.	14	Stamper	198	132	9	Yes	63		
382	American		M.	14	Clean-off	220	201	12	Yes	54	Puddler	Home
			M.	15	Driver	150	225	12	Yes	60		
383	American		M.	14	Laborer, cigar store.	78	36	3	Yes	54	Engineer, R. R.	Home
			M.	15	Stick-up	186	155	24	Yes	54		
384	American		M.	14	Snap-up	130	130	5	Yes	56	Brakeman	Home
			M.	15	Snap-up	130	130	5	Yes	64		
385	American		M.	14	Stick-up	50	60	2	Yes	50	Finisher	Home
			M.	15	Carry-in	250	205	12	Yes	40		
386	Irish, N		M.	14	Carry-in	210	136	22	Yes	48	Brass fin	Home
			M.	15	Brass fin., app.	180	120	24	Yes	54		
387	Bohem., F	5	M.	14	Crack-off	240	168	19	Yes	40	Laborer	Home
			M.	15	Bit boy	238	238	36	Yes	55		
388	Bohem., F	20	M.	14	Warm-in	250	175	12	Yes	56	Dead	Home
			M.	15	Pit boy, coal.	198	218	12	Yes	42		
389	English, F	30	M.	14	Carry-in	214	138	9	Yes	63	Dead	Work
			M.	15	Mold boy	210	147	5	Yes	36		
390	English, F	4	M.	14	Snap-up	182	148	7	Yes	63	Blower	Home
			M.	15	Snap-up	312	312	12	Yes	72		
391	English, F	17	M.	14	Carry-in	85	76	4	Yes	60	Tinner	Home
			M.	15	Warm-in	270	320	12	Yes	60		
392	French, F	39	M.	14	Snap-up	104	78	4	Yes	45	Carpenter	Home
			M.	15	Snap-up	228	168	10	Yes	51		
393	German, F	26	M.	14	Core boy	96	72	8	Yes	56	Deserter	Home
			M.	15	Mold boy	295	300	33	Yes	55		
394	Irish, F	26	M.	14	Carry-in	74	44	3	Yes	65	Laborer	Home
			M.	15	Carry-in	76	46	3	Yes	58		
395	Irish, F	25	M.	14	Mold boy	130	69	13	Yes	63	Carpenter	Home
			M.	15	Errand boy	240	200	24	Yes	56		
396	Italian, F	8	M.	14	Tin	300	300	12	Yes	50	Peddler, fruit.	Home
			M	15	Crack-off	232	232	55	Yes	35		
397	Italian, F	13	M.	14	Carry-down	80	60	4	Yes	55	Peddler, fruit.	Home
			M.	15	Carry-over	80	60	4	Yes	55		
398	Italian, F	1	M.	14	Carry-over	80	64	4	Yes	......	Peddler, fruit.	Home
			M.	15	Carry-over	80	64	4	Yes	......		
399	Polish, F	22	M.	14	Carry-over	100	83	4	Yes	60	Laborer	Dead
			M.	15	Stick-up	170	140	9	Yes	60		
400	Polish, F	22	M.	14	Crack-off	240	168	18	Yes	16	Miner	Home
			M.	15	Stick-up	242	169	24	Yes	32		
401	Polish, F	19	M.	14	Machine boy	216	248	9	Yes	45	Laborer	Home
			M.	15	Machine boy	300	335	31	Yes	45		
402	Polish, F	25	M.	14	Stick-up	244	263	12	Yes	45	Dead	Home
			M.	15	Machine boy	244	263	24	Yes	54		
403	Polish, F	17	M.	14	Stick-up	235	196	12	Yes	63	Laborer	Home
			M.	15	Mold boy	235	235	24	Yes	63		
404	Polish, F	16	M.	14	Stick-up	150	125	6	Yes	60	Street sweeper.	Home
			M.	15	Horseshoes	300	240	36	Yes	30		
405	Polish, F	2	M.	14	Carry-over	80	60	4	Yes	30	Dead	Home
			M.	15	Puller-up, iron.	100	80	6	Yes	20		
406	Polish, F	21	M.	14	Carry-over	240	220	18	Yes	30	Laborer	Home
			M.	15	Stick-up	240	264	36	Yes	30		
407	Polish, F	21	M.	14	Mold boy	75	75	3	Yes	50	Laborer	Home
			M.	15	Bit boy	250	457	24	Yes	40		
408	Russian, F	23	M.	14	Carry-in	283	259	12	Yes	27	Miner	Home
			M.	15	Carry-in	283	340	36	Yes	36		
409	Slav, F	21	M.	14	Carry-in	150	140	8	Yes	56	Fireman	Home
			M.	15	Clean-off	225	203	16	Yes	60		

OCCUPATION, AND EDUCATION OF THE CHILD, AND ECONOMIC CONDETAIL, FOR EACH STATE—Continued.

PENNSYLVANIA—Continued.

Membership of family.						Income of family past year.						Total earnings and income past year.	Am't retained by children 16 years and over.	Rent past year.	Per capita weekly income of family less earnings of children.		Family number.
Children of ages—				Total.	Total wage earners.	Earnings of—					Other.						
								Children—									
Under 10.	10 to 13.	14 and 15.	16 and over.			Father.	Mother.	Under 14.	14 and 15.	16 and over.					Under 16.	Under 14.	
1		1	1	5	3	$633			$142	$525		$1,300	$325	$180	$4.45		379
2	1	2		7	3	520			94			614		144	1.43		380
3	1	2	1	9	4	288			190	245		723		72	1.14		381
3	2	2	1	10	4	487			426	110		1,023		90	1.15		382
1	1	2	3	9	5	720			191	500		1,411	286	156	2.61		383
		2		4	3	587			260			847		120	2.82		384
	1	2	1	6	3	450			265			715		192	1.44		385
3	2	2		9	3	428			256			684		108	.91		386
2		2		6	3	281			406		$45	732		O.H.	1.04		387
2	1	2		6	2				393		10	403		39	.03		388
	2	2	1	6	4		$104		285	149	31	569		132	.91		389
2	1	2		7	3	728			460			1,188		108	2.00		390
2		2		6	3	250			396			646		150	.80		391
3		2	2	9	5	234			246	180	3	663		O.H.	.89		392
3	2	2	1	9	3				372	450		822		156	.96		393
4	1	2		9	3	339			90			429		60	.72		394
3	2	2		9	3	1,092			269			1,361		O.H.	2.33		395
2	1	2	1	8	3	200			532			732		168	.48		396
2	1	2		7	3	200			120			320		150	.55		397
1		2		5	3	150			128			278		120	.58		398
		2		3	3	225			223			448		108	1.44		399
6	2	2		12	3	416			337			753		84	.67		400
2		2	1	7	3	460			583			1,043		O.H.	1.26		401
1		2	2	6	3				526	259		785		144	.83		402
1	2	2		7	3	390			431		54	875		O.H.	1.22		403
1		2	1	6	4	547			365	1,200		2,112	950	96	5.60		404
		2		3	2				140		50	190		60	.32		405
1		2		5	3	300			484		12	796		O.H.	1.20		406
	2	2	1	7	4	375			532	168	3	1,078		O.H.	1.50		407
4	1	2	1	10	4	313			599	184	78	1,174		O.H.	1.11		408
2	2	2	1	9	4	650			343	225	35	1,253		O.H.	1.94		409

TABLE XXVII.—CHILDREN UNDER 16 YEARS OF AGE AT WORK: AGE, DITION OF THE CHILD AND THE FAMILY, IN

PENNSYLVANIA—Continued.

Family number.	The father.		The child.								Membership of family.	
											Occupation or condition of—	
	Race and nativity.	Yrs. in U. S.	Sex.	Age.	Occupation or industry.	Days worked past year.	Earnings past year.	Mos. since beginning work.	Can read and write.	Mos. school attendance.	Father.	Mother.
410	Slav, F	18	M.	14	Carry-in	72	$58	3	Yes.	47	Coke drawer.	Home
			M.	15	Coke drawer	250	111	48	Yes.	42		
411	Slovak, F	18	M.	14	Carry-in	240	240	20	Yes.	45	Deserter	Home
			M.	15	Warm-in	220	220	12	Yes.	63		
412	Slovak, F	18	M.	14	Carry-in	24	19	1	Yes.	54	Laborer	Home
			M.	15	Carry-in	240	192	20	Yes.	63		
413	Slovak, F	13	M.	14	Carry-in	95	76	6	Yes.	56	Laborer	Home
			M.	15	Water boy, furnace co.	250	362	36	Yes.	(a)		
414	Slovak, F	23	M.	14	Oiler, steel pipe.	72	60	3	Yes.	63	Idle	Home
			M.	15	Oiler, steel pipe.	306	459	3	Yes.	54		
415	Welsh, F.	20	M.	14	Mold boy	66	50	3	Yes.	64	Boiler mkr.	Home
			M.	15	Heater, iron and steel.	340	350	12	Yes.	64		
416	American	....	M.	14	Stopperer	288	180	12	Yes.	54	Laborer	Work
			F.	15	Warper, woolens.	150	150	12	Yes.	48		
417	American	....	F.	14	Winder, woolens.	104	72	6	Yes.	63	Dead	Work
			M.	15	Stick-up	295	202	18	Yes.	63		
418	American	.....	F.	15	Smoother	42	29	2	Yes.	60	Farmer	Home
419	American	....	F.	14	Marker, woolen.	300	200	12	Yes.	56	Dead	Home
			M.	15	Carry-in	350	186	24	Yes.	56		
420	American	....	F.	14	Selector	270	170	12	Yes.	52	Laborer	Home
			M.	15	Machine boy	271	352	24	Yes.	48		
421	German, N.	....	F.	14	Wrapper	120	80	5	Yes.	45	Laborer	Home
			M.	15	Clean-off	240	264	30	Yes.	40		
422	French, F	25	F.	14	Carton maker.	72	48	4	Yes.	72	Laborer	Home
			M.	15	Stick-up	235	235	24	Yes.	63		
423	German, F.	30	M.	14	Mold boy	240	168	24	Yes.	45	Motorman	Home
			F.	15	Selector	250	250	36	Yes.	54		
424	Polish, F	27	F.	14	Wiper	168	84	7	Yes.	56	Coke drawer.	Home
			M.	15	Coke drawer.	160	61	12	Yes.	48		
425	Polish, F	19	F.	14	Wiper	150	75	6	Yes.	42	Miner	Home
			M.	15	Miners' helper.	200	104	48	Yes.	47		
426	Polish, F	16	M.	14	Carry-in	178	107	7	Yes.	47	Coke drawer.	Home
			F.	15	Selector	240	120	24	Yes.	48		
427	Polish, F	17	M.	14	Carry-in	102	61	4	Yes.	19	Coke burner.	Home
			F.	15	Wiper	238	119	12	Yes.	20		
428	Polish, F	20	M.	14	Stick-up	150	135	6	Yes.	30	Laborer	Home
			F.	15	Corks	240	180	24	Yes.	40		
429	Slav, F	29	F.	14	Wiper	35	17	2	Yes.	64	Butcher	Home
			M.	15	Crack-off	238	167	24	Yes.	62		
430	Slovak, F	16	M.	14	Stick-up	96	96	4	Yes.	72	Dead	Home
			F.	15	Selector	283	212	17	Yes.	54		
431	Bohem., F	21	F.	14	Cut-off	156	78	6	Yes.	56	Miner	Home
			F.	15	Clothing	300	150	24	Yes.	54		
432	French, F	16	F.	14	Carton maker.	168	126	7	Yes.	48	Roller	Home
			F.	15	Selector	192	144	18	Yes.	70		
433	French, F	17	F.	14	Wrapper	250	166	12	Yes.	50	Miner	Home
			F.	15	Wrapper	250	187	36	Yes.	50		
434	Slav, F	20	F.	14	Cut-off	240	120	12	Yes.	38	Coke drawer.	Home
			F.	15	Wrapper	238	119	26	Yes.	46		
435	Slovak, F	22	F.	14	Bundle wrapper, store.	306	130	12	Yes.	54	Laborer	Home
			F.	15	Chipper	240	240	20	Yes.	54		
436	Welsh, F	42	F.	14	Wiper	102	59	(a)	(a)	(a)	Laborer	Home
			F.	15	Washer	108	58	(a)	(a)	(a)		
437	Polish, F	13	M.	14	Carry-in	232	139	9	Yes.	65	Coke drawer.	Home
			M.	14	Carry-in	102	61	4	Yes.	65		
			M.	15	Warm-in	245	171	24	Yes.	64		

[a] Not reported.

OCCUPATION, AND EDUCATION OF THE CHILD, AND ECONOMIC CONDETAIL, FOR EACH STATE—Continued.

PENNSYLVANIA—Continued.

Membership of family.						Income of family past year.						Total earnings and income past year.	Am't retained by children 16 years and over.	Rent past year.	Per capita weekly income of family less earnings of children.		Family number.
Children of ages—				Total.	Total wage earners.	Earnings of—					Other.						
						Father	Mother.	Children—									
Under 10.	10 to 13.	14 and 15.	16 and over.					Under 14.	14 and 15.	16 and over.					Under 16.	Under 14.	
3	2	2	1	10	4	$122			$169	$146	$52	$489		$54	$0.62		410
2	1	2	1	7	3				460	260		720		84	.71		411
		2		4	3	409			211		101	721		84	2.45		412
1		2		5	3	340			438			778		90	1.31		413
3		2	1	8	3				519	220		739		54	.53		414
	1	2	1	6	3	480			400			880		180	1.54		415
		2	1	5	5	180	$60		330	300		870	$144	84	2.08		416
1		2	1	5	4		156		274	178		608		72	1.28		417
		1		3	2	280			29		115	424		126	2.53		418
		2		3	2				386		84	470		72	.54		419
3	1	2	2	10	5	375			522	671		1,568	463	180	2.01		420
3	1	2	1	9	3	507			344			851		96	1.08		421
1		2		5	3	548			283		2	833		90	2.12		422
2	1	2		7	3	338			418			756		108	.93		423
3	2	2	1	10	4	181			145	200		526		66	.73		424
4	1	2		9	3	312			179		60	551		78	.79		425
4	1	2		9	3	328			227		10	565		84	.72		426
5	2	2	1	12	4	271			180	120		571		72	.63		427
3		2	2	9	4	188			315	320		823		132	1.09		428
4	2	2	2	12	4	400			184	202	55	841		O.H.	1.05		429
2		2	2	7	4				308	484	20	812		O.H.	1.38		430
	1	2	2	7	4	227			228	168	60	683		O.H.	1.25		431
1		2		5	3	975			270			1,245		O.H.	3.75		432
3	2	2	2	11	5	300			353	487	60	1,200		O.H.	1.48		433
3	1	2	1	9	4	305			239	163		707		78	1.00		434
1		2		5	3	504			370			874		78	1.94		435
	1	2	2	7	5	489			117	530	300	1,436		O.H.	3.62		436
3	1	3	1	10	5	243			371	126	20	760		O.H.	.75		437

TABLE XXVII.—CHILDREN UNDER 16 YEARS OF AGE AT WORK: AGE, DITION OF THE CHILD AND THE FAMILY IN

PENNSYLVANIA—Continued.

Family number.	The father.		The child.									Membership of family.	
												Occupation or condition of—	
	Race and nativity.	Yrs. in U. S.	Sex.	Age.	Occupation or industry.	Days worked past year.	Earnings past year.	Mos. since beginning work.	Can read and write.	Mos. school attendance.	Father.	Mother.
438	American	.....	M.	15	Snap-up	104	$72	4	Yes.	64	Dead	Work
439	American	.....	M.	15	Carry-in	300	186	24	Yes.	48	Dead	Work
440	American	.....	M.	15	Snap-up	228	209	24	Yes.	42	Deserter	Work
441	American	.....	M.	15	Washer	275	188	24	Yes.	60	Laborer	Work
442	American	.....	M.	15	Carry-in	228	209	12	Yes.	64	Laborer	Work
443	American	.....	M.	15	Warm-in	270	324	24	Yes.	60	Separated	Work
444	American	.....	M.	15	Water boy	52	36	2	Yes.	72	Contractor	Home
445	American	.....	M.	15	Water boy	36	27	8	Yes.	69	Blower	Home
446	American	.....	M.	15	Snap-up	104	72	4	Yes.	72	Miller	Home
447	American	.....	M.	15	Carry-in	104	96	4	Yes.	63	Skimmer	Home
448	American	.....	M.	15	Stick-up	30	30	2	Yes.	63	Machinist	Home
449	American	.....	M.	15	Snap-up	234	234	12	Yes.	72	Stone mason.	Home
450	American	.....	M.	15	Snap-up	104	96	4	Yes.	63	Gatherer	Home
451	American	.....	M.	15	Mold boy	96	120	36	Yes.	48	Teaser	Home
452	American	.....	M.	15	Mold boy	208	192	10	Yes.	64	Laborer	Home
453	American	.....	M.	15	Stick-up	210	147	10	Yes.	56	Contractor	Home
454	American	.....	M.	15	Snap-up	104	96	4	Yes.	64	Watchman.	Home
455	American	.....	M.	15	Snap-up	252	252	24	Yes.	67	Blower	Home
456	American	.....	M.	15	Stick-up	252	252	24	Yes.	50	Blower	Home
457	American	.....	M.	15	Clean-off	231	289	18	Yes.	63	Laborer	Home
458	American	.....	M.	15	Carry-in	168	168	8	Yes.	72	Blower	Home
459	American	.....	M.	15	Snap-up	234	234	17	Yes.	60	Laborer	Home
460	American	.....	M.	15	Carry-in	240	180	12	Yes.	48	Laborer	Home
461	American	.....	M.	15	Snap-up	240	240	14	Yes.	40	Carry-in	Home
462	American	.....	M.	15	Mold boy	210	190	24	Yes.	54	Dead	Home
463	American	.....	M.	15	Warm-in	220	154	10	Yes.	54	Laborer	Home
464	American	.....	M.	15	Bit boy	246	246	24	Yes.	54	Supervisor, street.	Home
465	American	.....	M.	15	Mold boy	163	158	18	Yes.	54	Mach. opr.	Home
466	American	.....	M.	15	Mold boy	275	235	(b)	(b)	(b)	Jockey	Home
467	American	.....	M.	15	Mold boy	259	211	(b)	(b)	(b)	Teamster	Home
468	American	.....	M.	15	Carry-in	18	12	1	Yes.	45	Separated	Home
469	American	.....	M.	15	Snap-up	228	190	12	Yes.	64	Laborer	Home
470	American	.....	M.	15	Warm-in	230	276	11	Yes.	70	Well driller	Home
471	American	.....	M.	15	Carry-in	85	85	3	Yes.	64	Watchman.	Home
472	American	.....	M.	15	Office boy, steel.	125	110	5	Yes.	60	Laborer	Home
473	American	.....	M.	15	Warm-in	36	25	(b)	(b)	(b)	Carpenter	Home
474	American	.....	M.	15	Stick-up	230	230	9	Yes.	70	Carpenter	Dead
475	American	.....	M.	15	Errand boy office.	307	195	24	Yes.	42	Teamster	Home
476	American	.....	M.	15	Machine boy	300	520	12	Yes.	60	Master teaser.	Home
477	American	.....	M.	15	Machine boy	25	25	1	Yes.	64	Painter	Home
478	American	.....	M.	15	Washer	96	100	24	Yes.	70	Janitor	Home
479	American	.....	M.	15	Mold boy	210	210	36	Yes.	50	Driver	Home
480	American	.....	M.	15	Carry-in	150	120	12	Yes.	50	Furnace man.	Home
481	American	.....	M.	15	Warm-in	170	136	10	Yes.	50	Laborer	Home
482	American	.....	M.	15	Clean-off	300	250	12	Yes.	60	Laborer	Home
483	American	.....	M.	15	Machine boy	150	225	16	Yes.	60	Cooper	Home
484	American	.....	M.	15	Snap-up	192	160	8	Yes.	64	Laborer	Home
			M.	15	Snap-up	104	96	4	Yes.	64		
485	Amer., col.	.....	M.	15	Mold boy	120	110	5	Yes.	56	Dead	Home
486	English, N.	.....	M.	15	Mold boy	155	84	24	Yes.	72	Ship carpenter.	Home
487	German, N.	.....	M.	15	Warm-in	280	210	(b)	(b)	(b)	Laborer	Home
488	German, N.	.....	M.	15	Crimper	271	180	12	Yes.	63	Finisher	Home
489	German, N.	.....	M.	15	Washer	300	325	24	Yes.	60	Deserter	Home
490	German, N.	.....	M.	15	Carry-in	208	164	19	Yes.	63	Helper	Home
491	German, N.	.....	M.	15	Decorator	192	160	12	Yes.	63	Laborer	Home
492	German, N.	.....	M.	15	Carry-in	216	175	9	Yes.	56	Dead	Home

[a] Estimated value of free rent.

[b] Not reported.

OCCUPATION, AND EDUCATION OF THE CHILD, AND ECONOMIC CON-
DETAIL, FOR EACH STATE—Continued.

PENNSYLVANIA—Continued.

Membership of family.						Income of family past year.						Total earnings and income past year.	Am't retained by children 16 years and over.	Rent past year.	Per capita weekly income of family less earnings of children.		Family number.
Children of ages—				Total.	Total wage earners.	Earnings of—					Other.						
						Father.	Mother.	Children—									
Under 10.	10 to 13.	14 and 15.	16 and over.					Under 14.	14 and over.	16 and over.					Under 16.	Under 14.	
....	....	1	2	4	3	......	$350	....	$72	$175	$104	$701	......	$84	$3.02	......	438
1	2	1	.....	5	2	......	156	....	186	......	20	362	......	60	.68	......	439
....	2	1	1	5	3	......	88	....	209	260	87	644	......	54	1.67	......	440
2	2	1	1	8	4	$90	20	....	188	312	......	610	......	96	1.01	......	441
1	2	1	2	8	5	365	104	....	209	99	10	787	......	O.H.	1.39	......	442
3	1	1	3	9	4	......	300	....	324	495	......	1,119	$195	108	1.70	......	443
2	1	1	1	7	2	1,300	......	....	36	......	......	1,336	......	72	3.57	......	444
....	1	1	.....	4	2	1,368	......	....	27	......	......	1,395	......	180	6.58	......	445
1	1	1	.....	5	2	650	......	....	72	......	350	1,072	......	a 120	3.85	......	446
3	1	1	.....	7	2	465	......	....	96	......	103	664	......	72	1.56	......	447
2	2	1	1	8	3	634	......	....	30	610	......	1,274	......	O.H.	2.99	......	448
2	1	1	3	9	4	1,053	......	....	234	936	221	1,444	......	O.H.	2.59	......	449
1	....	1	.....	4	2	744	......	....	96	......	54	894	......	108	3.84	......	450
....	....	1	1	4	3	408	......	....	120	300	......	828	......	120	3.40	......	451
....	2	1	1	6	3	468	......	....	192	192	......	852	......	72	2.12	......	452
1	....	1	3	7	4	800	......	....	147	997	......	1,944	685	96	4.94	......	453
2	....	1	1	6	3	390	......	....	96	96	......	582	32	84	1.56	......	454
2	2	2	.....	8	2	577	......	....	252	......	......	829	......	60	1.39	......	455
1	....	1	1	5	3	2,268	......	....	252	315	......	2,835	......	120	9.93	......	456
2	1	1	.....	6	2	610	......	....	289	......	......	899	......	162	1.96	......	457
2	2	1	2	9	4	496	......	....	168	464	......	1,128	......	144	2.05	......	458
....	....	1	1	4	3	410	......	....	234	234	......	878	......	O.H.	3.10	......	459
2	....	1	3	8	5	300	......	....	180	671	......	1,151	......	144	2.33	......	460
4	1	1	1	9	3	300	......	....	240	230	196	966	......	O.H.	1.55	......	461
....	1	1	2	5	2	......	......	....	190	1,000	......	1,190	220	108	3.85	......	462
1	1	1	2	7	3	378	......	....	154	52	20	604	......	60	1.24	......	463
....	....	1	2	5	4	600	......	....	246	373	170	1,389	......	O.H.	4.40	......	464
3	1	1	.....	7	2	455	......	....	158	......	......	613	......	192	1.25	......	465
....	....	1	.....	3	2	2,250	......	....	235	......	......	2,485	......	120	14.42	......	466
3	1	1	1	8	3	676	......	....	211	272	5	1,164	......	162	2.29	......	467
1	....	1	2	5	3	......	......	....	12	940	......	952	50	216	3.62	......	468
1	1	1	1	6	3	351	......	....	190	136	......	847	......	36	2.11	......	469
1	....	1	2	6	4	300	......	....	276	530	......	1,106	310	O.H.	2.66	......	470
....	1	1	2	6	3	546	......	....	85	300	......	931	150	96	2.71	......	471
3	1	1	3	10	4	350	......	....	110	230	......	690	183	180	1.12	......	472
1	....	2	3	8	4	620	......	....	25	800	......	1,445	......	108	3.41	......	473
....	3	1	1	6	2	450	......	....	230	......	c 150	830	......	36	1.92	......	474
1	1	1	5	10	7	312	......	....	195	2,540	3	3,050	1,668	192	5.49	......	475
1	1	2	.....	6	2	600	......	....	520	......	......	1,120	......	96	1.92	......	476
2	....	1	.....	5	2	600	......	....	25	......	......	625	......	150	2.31	......	477
1	1	1	4	9	6	375	......	....	100	2,056	......	2,531	1,380	O.H.	5.19	......	478
2	....	1	1	6	3	470	......	....	210	420	47	1,147	320	180	3.00	......	479
2	1	1	.....	6	2	350	......	....	120	......	......	470	......	132	1.12	......	480
2	....	2	.....	6	2	520	......	....	136	......	90	746	......	O.H.	1.96	......	481
2	....	1	.....	5	2	1,000	......	....	250	......	......	1,250	......	180	3.85	......	482
3	1	1	1	8	3	840	......	....	225	247	......	1,312	......	100	2.61	......	483
....	....	2	1	5	4	483	......	....	256	336	......	1,075	236	60	3.15	......	484
....	1	1	2	5	3	......	......	....	110	400	......	510	180	120	1.54	......	485
5	2	2	.....	11	2	420	......	....	84	......	7	511	......	69	.75	......	486
1	2	1	3	9	4	375	......	....	210	1,202	......	1,787	307	O.H.	3.37	......	487
3	1	1	2	9	3	720	......	....	180	312	......	1,212	......	156	2.21	......	488
....	....	1	2	4	3	......	......	....	325	480	160	965	180	216	3.08	......	489
1	2	1	3	9	4	602	......	....	164	1,296	......	2,062	330	O.H.	4.06	......	490
....	....	1	2	5	4	305	......	....	160	734	......	1,199	318	180	4.00	......	491
1	1	1	.....	4	1	......	......	....	175	......	200	375	......	60	.96	......	492

[c] Amount of life insurance received.

TABLE XXVII.—CHILDREN UNDER 16 YEARS OF AGE AT WORK: AGE, DITION OF THE CHILD AND THE FAMILY, IN

PENNSYLVANIA—Continued.

Family number.	The father.		The child.								Membership of family.	
											Occupation or condition of—	
	Race and nativity.	Yrs. in U. S.	Sex.	Age.	Occupation or industry.	Days worked past year.	Earnings past year.	Mos. since beginning work.	Can read and write.	Mos. school attendance.	Father.	Mother.
493	German, N	.....	M.	15	Stick-up	100	$115	4	Yes.	60	Furnace man.	Home
494	German, N	.....	M.	15	Laborer, steel.	271	474	12	Yes.	63	Fireman	Home
495	German, N	.....	M.	15	Warm-in	200	200	12	Yes.	60	Laborer	Home
496	German, N	.....	M.	15	Errand boy, office.	36	23	(a)	(a)	(a)	Presser	Home
497	German, N	.....	M.	15	Clean-off	25	24	2	Yes.	80	Laborer	Home
498	German, N	.....	M.	15	Clean-off	220	190	24	Yes.	63	Metal brazier.	Home
499	German, N	.....	M.	15	Mold boy	198	180	12	Yes.	72	Blower	Home
500	German, N	.....	M.	15	Mold boy	230	186	(a)	(a)	(a)	Dead	Home
501	German, N	.....	M.	15	Clean-off	213	266	16	Yes.	72	Miner	Home
502	German, N	.....	M.	15	Clean-off	220	193	12	Yes.	70	Molder	Home
503	German, N	.....	M.	15	Snap-up	234	240	12	Yes.	72	Blower	Home
504	German, N	.....	M.	15	Carry-in	250	207	12	Yes.	58	Repairer	Work
505	German, N	.....	M.	15	Clean-off	250	290	15	Yes.	70	Dead	Home
506	Irish, N	.....	M.	15	Carry-in	290	186	12	Yes.	63	Switchman	Home
507	Irish, N	.....	M.	15	Snap-up	230	150	48	Yes.	58	Dead	Work
508	Irish, N	.....	M.	15	Washer	286	235	22	Yes.	63	Deserter	Work
509	Irish, N	.....	M.	15	Carry-in	290	180	14	Yes.	63	Laborer	Work
510	Irish, N	.....	M.	15	Carry-in	12	9	(a)	(a)	(a)	Gas fitter	Home
511	Irish, N	.....	M.	15	Clean-off	100	100	36	Yes.	56	Bricklayer	Dead
512	Irish, N	.....	M.	15	Mold boy	190	152	12	Yes.	54	Carpenter	Home
513	Irish, N	.....	M.	15	Crimper	132	153	8	Yes.	30	Watchman.	Home
514	English, N	.....	M.	15	Smoother's app.	168	168	7	Yes.	81	Plasterer	Home
515	English, N	.....	M.	15	Stick-up	210	165	24	Yes.	56	Dead	Home
516	Bohem., F	25	M.	15	Crack-off	240	168	18	Yes.	56	Miner	Home
517	Bohem., F	18	M.	15	Crack-off	240	192	16	Yes.	50	Miner	Home
518	English, F	36	M.	15	Clean-off	220	209	36	Yes.	45	Blower	Home
519	English, F	20	M.	15	Clean-off	212	265	16	Yes.	63	Cutter	Home
520	English, F	40	M.	15	Stick-up	125	130	6	Yes.	65	Grinder	Home
521	English, F	10	M.	15	Warm-in	120	121	6	Yes.	60	Tinner	Home
522	English, F	12	M.	15	Machine boy	250	250	16	Yes.	50	Laborer	Home
523	English, F	27	M.	15	Stick-up	190	190	7	Yes.	50	Miner	Home
			M.	15	Clerk, grocery.	190	150	7	Yes.	50		
524	French, F	24	M.	15	Snap-up	156	156	8	Yes.	64	Snapper	Home
525	French, F	22	M.	15	Stick-up	200	200	12	Yes.	55	Miner	Home
526	French, F	18	M.	15	Snap-up	260	260	12	Yes.	56	Laborer	Home
527	French, F	4	M.	15	Take-out	250	216	10	Yes.	60	Laborer	Home
528	French, F	19	M.	15	Take-out	280	280	12	Yes.	60	Miner	Home
529	French, F	22	M.	15	Stick-up	200	200	12	Yes.	55	Miner	Home
530	French, F	4	M.	15	Wiper	216	180	12	Yes.	45	Laborer	Home
531	French, F	20	M.	15	Crimper	175	175	9	Yes.	60	Furnace man.	Dead
532	German, F	(a)	M.	15	Warm-in	298	300	(a)	(a)	(a)	Laborer	Home
533	German, F	40	M.	15	Mold boy	300	250	12	Yes.	70	Laborer	Home
534	German, F	28	M.	15	Mold boy	300	450	15	Yes.	50	Blacksmith	Home
535	German, F	20	M.	15	Machine boy	192	211	8	Yes.	54	Merchant	Home
536	German, F	35	M.	15	Carry-in	250	123	12	Yes.	70	Foreman	Dead
537	German, F	16	M.	15	Carry-in	250	343	11	Yes	58	Miner	Home
538	German, F	22	M.	15	Stick-up	180	198	27	Yes.	54	Laborer	Home
539	German, F	40	M.	15	Warm-in	200	250	24	Yes.	40	Gatherer	Home
540	German, F	40	M.	15	Crack-off	72	59	5	Yes.	60	Laborer	Home
541	German, F	15	M.	15	Glass	260	273	12	Yes.	30	Dead	Home
542	German, F	24	M.	15	Tong cleaner, pipe mill.	307	307	(a)	(a)	(a)	Laborer	Home
543	German, F	6	M.	15	Snap-up	182	140	9	Yes.	64	Weigher	Home
544	German, F	24	M.	15	Mold boy	150	150	8	Yes.	60	Melter	Home
545	German, F	17	M.	15	Carry-in	75	75	7	Yes.	60	Watchman.	Home

a Not reported.

OCCUPATION, AND EDUCATION OF THE CHILD, AND ECONOMIC CONDETAIL, FOR EACH STATE—Continued.

PENNSYLVANIA—Continued.

Membership of family.						Income of family past year.						Total earnings and income past year.	Am't retained by children 16 years and over.	Rent past year.	Per capita weekly income of family less earnings of children.		Family number.
Children of ages—				Total.	Total wage earners.	Earnings of—											
Under 10.	10 to 13.	14 and 15.	16 and over.			Father.	Mother.	Children—			Other.				Under 16.	Under 14.	
								Under 14.	14 and 15.	16 and over.							
....	2	2	4	10	6	$900	......	....	$115	$1,065	....	$2,080	......	O.H.	$3.78	......	493
1	...	1	3	7	5	561	......	....	474	746	....	1,781	$130	$192	3.59	......	494
1	2	1	3	9	4	500	......	....	200	830	....	1,530	......	O.H.	2.84	......	495
1	2	1	3	9	5	1,075	......	....	23	401	$47	1,546	......	O.H.	3.25	......	496
1	...	1	2	6	2	450	......	....	24	......	....	474	......	O.H.	1.44	......	497
4	1	1	2	10	3	750	......	....	190	430	....	1,370	......	O.H.	2.27	......	498
2	2	1	3	10	3	1,350	......	....	180	645	52	2,227	225	O.H.	3.94	......	499
....	...	2	.....	3	1	....	......	....	186	......	50	236	......	96	.32	......	500
....	1	1	1	5	3	666	......	....	266	792	....	1,724	......	O.H.	5.61	......	501
4	2	1	.....	9	2	750	......	....	193	......	....	943	......	132	1.60	......	502
3	1	1	.....	7	2	1,425	......	....	240	......	....	1,665	......	120	3.91	......	503
3	1	2	1	9	4	675	$78	....	207	68	....	1,028	......	144	1.75	......	504
....	1	1	2	5	3	....	......	....	290	477	....	767	......	150	1.83	......	505
2	...	1	1	6	3	468	......	....	186	220	....	874	......	108	2.21	......	506
....	...	1	2	b 5	4	....	280	....	150	1,430	48	1,908	1,054	132	6.76	......	507
1	...	1	1	b 5	3	....	156	....	235	257	....	648	......	156	1.59	......	508
3	1	1	.....	7	3	415	198	....	180	......	....	793	......	96	1.68	......	509
2	...	1	1	6	2	1,087	......	....	9	......	....	1,096	......	192	3.48	......	510
....	2	1	1	5	2	475	......	....	100	......	....	575	......	60	1.83	......	511
1	1	1	2	b 8	4	630	......	....	152	924	96	1,802	248	150	3.97	......	512
3	...	1	1	7	3	716	......	....	153	24	....	893	......	180	2.03	......	513
1	3	2	.....	8	2	900	......	....	168	......	190	1,258	......	O.H.	2.62	......	514
....	...	1	1	3	2	....	......	....	165	250	25	440	......	36	1.76	......	515
1	1	1	2	7	3	302	......	....	168	204	62	736	......	O.H.	1.56	......	516
3	...	1	1	7	3	420	......	....	192	238	57	907	......	O.H.	1.96	......	517
....	2	2	.....	6	2	1,320	......	....	209	......	30	1,559	......	96	4.33	......	518
2	1	1	1	7	3	842	......	....	265	84	125	1,316	......	O.H.	2.89	......	519
3	2	1	1	9	3	520	......	....	130	275	....	925	5	96	1.70	......	520
2	1	1	2	8	3	875	......	....	121	520	....	1,516	120	O.H.	3.35	......	521
1	1	1	.....	5	2	225	......	....	250	......	....	475	......	O.H.	.87	......	522
....	1	2	1	6	3	700	......	....	340	......	....	1,040	......	O.H.	2.24	......	523
....	...	1	2	5	4	336	......	....	156	1,197	....	1,689	......	O.H.	5.90	......	524
1	1	1	1	6	3	660	......	....	200	200	180	1,240	......	O.H.	3.33	......	525
2	1	1	2	8	3	884	......	....	260	660	24	1,828	......	O.H.	3.77	......	526
....	...	1	3	6	5	221	......	....	216	741	....	1,178	......	O.H.	3.08	......	527
2	2	1	1	8	2	350	......	....	280	......	....	630	......	O.H.	.84	......	528
1	1	1	1	6	3	660	......	....	200	200	180	1,240	......	O.H.	3.33	......	529
....	2	1	1	6	3	180	......	....	180	153	....	513	......	O.H.	1.07	......	530
....	1	1	1	4	3	700	......	....	175	112	30	1,017	......	O.H.	4.05	......	531
....	1	2	1	6	3	356	......	....	300	230	....	886	......	100	1.88	......	532
....	...	1	2	5	3	290	......	....	250	150	....	690	......	O.H.	1.69	......	533
2	3	1	.....	8	2	1,050	......	....	450	......	....	1,500	......	O.H.	2.52	......	534
2	2	1	2	9	4	400	......	....	211	250	....	861	......	276	1.39	......	535
1	...	2	.....	b 5	2	832	......	....	123	......	....	955	......	120	3.20	......	536
....	1	1	1	5	2	225	......	....	343	......	120	688	......	c 120	1.33	......	537
1	2	1	2	8	3	378	......	....	198	360	....	936	......	180	1.77	......	538
1	1	1	.....	5	2	165	......	....	250	......	6	421	......	108	.66	......	539
2	1	1	3	9	5	345	......	....	59	967	....	1,371	......	O.H.	2.80	......	540
....	1	1	2	5	3	....	......	....	273	646	....	919	230	144	2.48	......	541
3	1	1	4	11	5	461	......	....	307	706	....	1,474	......	O.H.	2.04	......	542
2	...	1	.....	5	2	333	......	....	140	......	....	473	......	72	1.28	......	543
3	2	2	.....	9	2	400	......	....	150	......	35	585	......	O.H.	.93	......	544
2	2	2	.....	8	2	500	......	....	75	......	....	575	......	108	1.20	......	545

[b] Including 1 other member.

[c] Estimated value of free rent.

TABLE XXVII.—CHILDREN UNDER 16 YEARS OF AGE AT WORK: AGE, DITION OF THE CHILD AND THE FAMILY, IN

PENNSYLVANIA—Continued.

Family number.	The father.		The child.								Membership of family. Occupation or condition of—	
	Race and nativity.	Yrs. in U. S.	Sex.	Age.	Occupation or industry.	Days worked past year.	Earnings past year.	Mos. since beginning work.	Can read and write.	Mos. school attendance.	Father.	Mother.
546	German, F.	19	M.	15	Mold boy	250	$270	24	Yes.	55	Window glass.	Home
547	German, F.	27	M.	15	Clean-off	250	175	18	Yes.	72	Driver	Home
548	German, F.	20	M.	15	Carry-in	60	50	(a)	(a)	(a)	Inspector	Home
549	German, F.	27	M.	15	Polisher	240	144	12	Yes.	56	Miner	Home
550	German, F.	41	M.	15	Mold boy	77	75	24	Yes.	63	Millwright's helper.	Home
551	German, F.	24	M.	15	Mold boy	236	193	(a)	Yes.	80	Foreman	Home
552	German, F.	34	M.	15	Snap-up	130	120	5	Yes.	81	Coppersmith.	Home
553	German, F.	20	M.	15	Carry-in	250	320	48	Yes.	40	Dead	Home
554	German, F.	25	M.	15	Clean-off	240	230	27	Yes.	54	Dead	Home
555	German, F.	43	M.	15	Mold boy	230	250	24	Yes.	60	Laborer	Home
556	German, F.	40	M.	15	Stick-up	180	120	9	Yes.	65	Miner	Home
557	German, F.	21	M.	15	Snap-up	264	264	12	Yes.	64	Mixer	Home
558	German, F.	10	M.	15	Stick-up	240	220	14	Yes.	56	Dead	Work
559	German, F.	20	M. M.	15 15	Hand-over, iron. Iron cutter, iron and steel.	250 301	280 292	(a) (a)	(a) (a)	(a) (a)	Dead	Work
560	German, F.	20	M. M.	15 15	Crack-off Laborer, steel.	262 294	248 279	11 12	Yes. Yes.	72 72	Dead	Work
561	Irish, F.	20	M.	15	Carry-in	130	130	18	Yes.	63	Dead	Work
562	Irish, F.	20	M.	15	Clean-off	300	200	48	Yes.	5	Deserter	Work
563	Irish, F.	60	M.	15	Snap-up	104	96	4	Yes.	56	Laborer	Home
564	Irish, F.	20	M.	15	Carry-in	240	156	9	Yes.	70	Laborer	Home
565	Irish, F.	40	M.	15	Carry-in	200	130	8	Yes.	63	Motorman	Dead.
566	Irish, F.	35	M.	15	Snap-up	230	161	24	Yes.	56	Dead	Home
567	Irish, F.	25	M.	15	Carry-in	280	159	21	Yes.	49	Laborer	Home
568	Irish, F.	26	M.	15	Clean-off	230	161	9	Yes.	63	Longshoreman.	Home
569	Irish, F.	33	M.	15	Clean-off	223	205	19	Yes.	75	Driver	Home
570	Irish, F.	22	M.	15	Carry-in	18	15	(a)	(a)	(a)	Deserter	Home
571	Irish, F.	24	M.	15	Clean-off	247	233	(a)	(a)	(a)	Laborer	Home
572	Irish, F.	45	M.	15	Mold boy	217	180	(a)	(a)	(a)	Idle	Home
573	Irish, F.	18	M.	15	Mold boy	24	13	3	Yes.	73	Laborer	Home
574	Irish, F.	21	M.	15	Carry-in	250	157	18	Yes.	56	Laborer	Home
575	Irish, F.	28	M.	15	Carry-in	216	146	24	Yes.	40	Dead	Home
576	Irish, F.	25	M.	15	Mold boy	196	215	18	Yes.	45	Laborer	Home
577	Italian, F.	22	M.	15	Stick-up	230	200	12	Yes.	70	Laborer	Work
578	Italian, F.	7	M.	15	Washer	267	291	36	Yes.	27	Carry-in	Home
579	Italian, F.	4	M.	15	Crack-off	84	77	4	Yes.	72	Washer	Home
580	Italian, F.	5	M.	15	Crimper	225	215	12	Yes.	60	Laborer	Home
581	Italian, F.	2	M.	15	Snap-up	182	144	7	Yes.	75	Mixer	Home
582	Italian, F.	10	M.	15	Snap-up	312	292	15	Yes.	24	Section hand.	Away
583	Italian, F.	18	M.	15	Snap-up	234	234	36	Yes.	54	Laborer	Home
584	Italian, F.	4	M.	15	Snap-up	84	84	32	Yes.	39	Laborer	Away
585	Italian, F.	15	M.	15	Snap-up	252	212	60	Yes.	32	Laborer	Home
586	Italian, F.	23	M.	15	Snap-up	252	252	24	Yes.	52	Laborer	Home
587	Italian, F.	18	M.	15	Carry-in	240	195	24	Yes.	54	Peddler, flowers.	Work
588	Italian, F.	18	M.	15	Mold boy	250	290	12	Yes.	50	Merchant	Home
589	Italian, F.	19	M.	15	Clean-off	250	312	18	Yes.	45	Miner	Home
590	Italian, F.	12	M.	15	Clean-off	220	183	24	Yes.	30	Painter	Home
591	Italian, F.	11	M. M.	15 15	Stick-up Stick-up	240 240	240 240	24 24	Yes. Yes.	50 50	Cobbler	Home
592	Lith., F.	21	M.	15	Leer tender.	180	90	12	Yes.	60	Dead	Work

[a] Not reported.

[b] Including 1 other member.

OCCUPATION, AND EDUCATION OF THE CHILD, AND ECONOMIC CONDETAIL, FOR EACH STATE—Continued.

PENNSYLVANIA—Continued.

Membership of family.						Income of family past year.						Total earnings and income past year.	Am't retained by children 16 years and over.	Rent past year.	Per capita weekly income of family less earnings of children.		Family number.
Children of ages—				Total.	Total wage earners.	Earnings of—					Other.						
Under 10.	10 to 13.	14 and 15.	16 and over.			Father.	Mother.	Children—							Under 16.	Under 14.	
								Under 14.	14 and 15.	16 and over.							
1	2	1	.....	6	2	$780	.....	....	$270	.....	.....	$1,050	.....	O.H.	$2.50	.....	546
....	2	1	1	6	3	570	.....	....	175	$270	$40	1,055	.....	O.H.	2.82	.....	547
....	...	1	.....	3	2	753	.....	....	50	.....	.....	803	.....	$114	4.83	.....	548
2	3	1	4	12	6	333	.....	....	144	1,258	10	1,745	.....	108	2.57	.....	549
....	1	1	2	6	4	440	.....	....	75	360	.....	875	$130	168	2.56	.....	550
3	1	1	2	9	3	450	.....	....	193	335	.....	978	.....	O.H.	1.68	.....	551
2	2	1	.....	7	2	450	.....	....	120	.....	.....	570	.....	96	1.24	.....	552
2	...	1	2	6	3	.....	.....	....	320	870	.....	1,190	.....	O.H.	2.79	.....	553
1	3	1	4	10	5	.....	.....	....	230	930	.....	1,160	.....	132	1.79	.....	554
1	1	1	2	7	4	315	.....	....	250	118	.....	683	.....	O.H.	1.19	.....	555
2	2	1	1	[b] 9	3	600	.....	....	120	120	50	890	.....	108	1.65	.....	556
....	2	1	1	6	3	574	.....	....	264	264	.....	1,102	.....	60	2.69	.....	557
....	1	1	1	4	3	.....	$156	....	220	90	86	552	.....	120	1.60	.....	558
....	3	2	1	7	4	.....	78	....	572	175	[c] 320	1,145	.....	84	1.57	.....	559
1	2	2	1	7	4	.....	52	....	527	171	[c] 500	1,250	.....	84	1.99	.....	560
1	2	1	2	7	4	.....	231	....	130	400	.....	761	.....	60	1.73	.....	561
2	1	1	1	6	3	.....	300	....	200	75	.....	575	.....	72	1.20	.....	562
....	...	1	2	5	3	175	.....	....	96	390	.....	661	.....	O.H.	2.17	.....	563
2	2	1	.....	7	2	800	.....	....	156	.....	.....	956	.....	120	2.20	.....	564
....	...	1	3	5	4	480	.....	....	130	1,350	62	2,022	950	180	7.28	.....	565
....	1	1	2	5	3	.....	.....	....	161	333	31	525	.....	120	1.40	.....	566
....	1	1	3	7	5	396	.....	....	159	424	.....	979	.....	120	2.25	.....	567
2	2	1	.....	7	2	506	.....	....	161	.....	.....	667	.....	108	1.39	.....	568
1	2	1	.....	6	2	420	.....	....	205	.....	72	697	.....	[d] 72	1.58	.....	569
3	2	1	4	11	5	.....	.....	....	15	1,202	.....	1,217	194	240	2.10	.....	570
3	2	1	.....	8	2	320	.....	....	233	.....	.....	553	.....	240	.77	.....	571
1	2	1	2	8	3	.....	.....	....	180	255	.....	435	75	O.H.	.61	.....	572
3	2	1	.....	8	2	600	.....	....	13	.....	.....	613	.....	72	1.44	.....	573
2	1	1	.....	6	2	696	.....	....	157	.....	.....	853	.....	96	2.23	.....	574
1	2	1	1	6	1	.....	.....	....	146	.....	.....	146	.....	60	.....	.....	575
2	2	1	1	8	2	588	.....	....	215	.....	.....	803	.....	120	1.41	.....	576
2	1	1	.....	6	3	400	300	....	200	.....	.....	900	.....	O.H.	2.24	.....	577
....	...	1	4	7	5	323	.....	....	291	2,730	.....	3,344	.....	O.H.	8.39	.....	578
....	1	1	.....	4	2	510	.....	....	77	.....	200	787	.....	192	3.41	.....	579
....	...	1	1	4	3	150	.....	....	215	412	50	827	162	O.H.	2.94	.....	580
....	...	1	.....	3	2	348	.....	....	144	.....	.....	492	.....	96	2.23	.....	581
....	...	1	.....	2	2	455	.....	....	292	.....	.....	747	.....	15	4.38	.....	582
4	2	1	1	10	3	624	.....	....	234	234	.....	1,092	.....	72	1.65	.....	583
....	...	1	.....	2	2	316	.....	....	84	.....	.....	400	.....	120	3.04	.....	584
4	...	2	2	10	4	462	.....	....	212	693	.....	1,367	.....	O.H.	2.22	.....	585
....	...	1	.....	3	2	300	.....	....	252	.....	195	747	.....	O.H.	3.17	.....	586
4	2	1	.....	9	3	312	155	....	195	.....	.....	662	.....	48	1.00	.....	587
1	1	1	1	6	3	300	.....	....	290	150	.....	740	.....	O.H.	1.44	.....	588
1	1	1	.....	5	2	384	.....	....	312	.....	30	726	.....	126	1.59	.....	589
1	...	1	.....	4	2	400	.....	....	183	.....	60	643	.....	264	2.21	.....	590
4	1	2	1	10	3	150	.....	....	480	.....	.....	630	.....	132	.29	.....	591
2	1	1	2	7	4	.....	35	....	90	270	.....	395	.....	O.H.	.84	.....	592

[c] Amount of life insurance received.

[d] Estimated value of free rent.

TABLE XXVII.—CHILDREN UNDER 16 YEARS OF AGE AT WORK: AGE, DITION OF THE CHILD AND THE FAMILY, IN

PENNSYLVANIA—Continued.

Family number.	The father.		The child.								Membership of family.	
											Occupation or condition of—	
	Race and nativity.	Yrs. in U. S.	Sex.	Age.	Occupation or industry.	Days worked past year.	Earnings past year.	Mos. since beginning work.	Can read and write.	Mos. school attendance.	Father.	Mother.
593	Polish, F	18	M.	15	Chain maker, steel.	96	$72	4	Yes.	45	Laborer	Home
594	Polish, F	14	M.	15	Carry-in	217	198	12	Yes.	60	Butcher	Home
595	Polish, F	6	M.	15	Crack-off	190	174	9	Yes.	27	Laborer	Home
596	Polish, F	17	M.	15	Crack-off	72	58	3	Yes.	36	Laborer	Home
597	Polish, F	19	M.	15	Packer	240	173	24	Yes.	60	Miner	Home
598	Polish, F	8	M.	15	Carry-in	82	61	(a)	(a)	(a)	Laborer	Home
599	Polish, F	28	M.	15	Warm-in	295	300	(a)	(a)	(a)	Idle	Home
600	Polish, F	12	M.	15	Carry-in	240	240	36	Yes.	38	Laborer	Home
601	Polish, F	23	M.	15	Mold boy	216	249	29	Yes.	36	Laborer	Home
602	Polish, F	15	M.	15	Mold boy	300	345	54	Yes.	32	Laborer	Home
603	Polish, F	7	M.	15	Clean-off	275	292	26	Yes.	48	Laborer	Home
604	Polish, F	13	M.	15	Carry-in	210	160	18	Yes.	50	Laborer	Home
605	Polish, F	27	M.	15	Polisher	142	85	6	Yes.	56	Cokedrawer	Home
606	Polish, F	24	M.	15	Carry-in	230	210	24	Yes.	60	Laborer	Home
607	Polish, F	30	M.	15	Stick-up	66	60	24	Yes.	60	Polisher	Home
608	Polish, F	8	M.	15	Clean-off	215	198	24	Yes.	50	Laborer	Home
609	Polish, F	20	M.	15	Carry-in	230	210	24	Yes.	40	Laborer	Home
610	Polish, F	20	M.	15	Clean-off	220	180	24	Yes.	60	Laborer	Home
611	Polish, F	18	M.	15	Bit boy	202	141	8	Yes.	40	Miner	Home
612	Polish, F	20	M.	15	Crack-off	223	185	24	Yes.	50	Laborer	Dead
613	Polish, F	18	M.	15	Carry-over	50	36	3	No.	60	Laborer	Home
614	Polish, F	19	M.	15	Mold boy	223	204	16	Yes.	60	Dead	Home
615	Polish, F	17	M.	15	Mold boy	80	73	4	Yes.	60	Driver	Home
616	Polish, F	19	M.	15	Snap-up	234	234	42	Yes.	60	Pourer	Home
617	Polish, F	17	M.	15	Clean-off	223	220	12	Yes.	60	Chipper	Home
618	Polish, F	18	M.	15	Stick up	100	100	4	Yes.	70	Laborer	Home
619	Polish, F	16	M.	15	Machine boy	260	260	15	Yes.	60	Laborer	Home
620	Polish, F	18	M.	15	Stick-up	240	270	12	Yes.	45	Dead	Home
621	Polish, F	12	M.	15	Cut-off	75	56	3	Yes.	54	Dead	Work
622	Russian, F	30	M.	15	Take-out	100	80	4	Yes.	50	Ragpicker	Home
623	Russian, F	14	M.	15	Stick-up	100	92	4	Yes.	55	Miner	Home
624	Russian, F	15	M.	15	Take-out	256	297	16	Yes.	18	Dead	Work
625	Scand., F	4	M.	15	Clean-off	300	270	24	Yes.	60	Blower	Home
626	Scand., F	22	M.	15	Snap-up	228	190	18	Yes.	50	Dead	Home
627	Scand., F	19	M.	15	Snap-up	252	252	12	Yes.	75	Leersman	Home
628	Scand., F	6	M.	15	Snap-up	228	190	36	Yes.	48	Stonecrushr	Home
629	Scand., F	20	M.	15	Snap-up	264	264	60	Yes.	36	Dead	Work
630	English, F	34	M.	15	Mold boy	108	90	(a)	(a)	(a)	Shearman	Home
631	Slav, F	5	M.	15	Carry-in	225	230	72	No.	10	Laborer	Home
632	Slav, F	9	M.	15	Carry-in	51	25	2	Yes.	40	Miner	Home
633	Slav, F	19	M.	15	Grinder	240	144	13	Yes.	64	Laborer	Home
634	Slav, F	20	M.	15	Warm-in	106	61	4	Yes.	63	Miner	Home
635	Slav, F	21	M.	15	Carry-in	76	46	3	Yes.	56	Coke leveler	Home
636	Slav, F	16	M.	15	Clean-off	230	230	17	Yes.	56	Blacksmith	Home
637	Slav, F	21	M.	15	Crack-off	125	135	12	Yes.	50	Laborer	Home
638	Slav, F	18	M.	15	Clean-off	200	150	11	Yes.	60	Miner	Home
639	Slovak, F	20	M.	15	Mold boy	225	247	15	Yes.	56	Laborer	Home
640	Slovak, F	25	M.	15	Warm-in	205	212	13	Yes.	27	Laborer	Home
641	Slovak, F	22	M.	15	Warm-in	262	288	12	Yes.	18	Laborer	Home
642	Slovak, F	5	M.	15	Core boy	256	179	12	Yes.	54	Laborer	Home
643	Slovak, F	12	M.	15	Warm-in	280	214	12	Yes.	63	Hammerman.	Home
644	Welsh, F	20	M.	15	Carry-in	260	208	15	Yes.	60	Foreman	Home
645	Welsh, F	24	M.	15	Mold boy	180	200	24	Yes.	40	Engineer	Home
646	American		F.	15	Wrapper	48	32	2	Yes.	60	Deserter	Home
647	American		F.	15	Selector	160	112	7	Yes.	60	Laborer	Home
648	American		F.	15	Sorter	24	17	1	Yes.	75	Carpenter	Home
649	American		F.	15	Selector	240	172	24	Yes.	50	Painter	Home
650	American		F.	15	Selector	135	100	6	Yes.	51	Dead	Home
651	American		F.	15	Transferer	180	105	24	Yes.	56	Divorced	Home
652	American		F.	15	Mold cleaner	290	200	18	Yes.	42	Laborer	Home
653	American		F.	15	Wrapper	290	200	24	Yes.	65	Contractor	Home

[a] Not reported.

OCCUPATION, AND EDUCATION OF THE CHILD, AND ECONOMIC CONDETAIL, FOR EACH STATE—Continued.

PENNSYLVANIA—Continued.

Membership of family.						Income of family past year.						Total earnings and income past year.	Am't retained by children 16 years and over.	Rent past year.	Per capita weekly income of family less earnings of children.		Family number.
Children of ages—				Total.	Total wage earners.	Earnings of—					Other.						
Under 10.	10 to 13.	14 and 15.	16 and over.			Father.	Mother.	Children—							Under 16.	Under 14.	
								Under 14.	14 and 15.	16 and over.							
2	1	1	2	8	3	$403	......	....	$72	$134	$48	$657	......	O.H.	$1.41	......	593
3	2	1	2	10	3	564	......	....	198	189	60	1,011	......	O.H.	1.56	......	594
4	...	1	1	8	3	574	......	....	174	280	......	1,028	......	$102	2.05	......	595
1	...	1	1	5	3	294	......	....	58	288	......	640	......	60	2.24	......	596
5	2	1	1	11	3	229	......	....	173	175	100	677	......	60	.88	......	597
2	1	1	.....	6	2	503	......	....	61	......	40	604	......	96	1.74	......	598
1	...	1	4	8	5	......	......	....	300	1,489	84	1,873	......	O.H.	3.78	......	599
4	1	1	.....	8	2	288	......	....	240	......	7	535	......	O.H.	.71	......	600
....	1	2	1	6	3	459	......	....	249	144	54	906	......	O.H.	2.11	......	601
....	...	1	.....	3	2	300	......	....	345	......	......	645	......	O.H.	1.92	......	602
4	1	1	.....	8	2	450	......	....	292	......	......	742	......	96	1.08	......	603
1	1	1	.....	5	2	400	......	....	160	......	......	560	......	96	1.54	......	604
5	2	1	.....	10	2	341	......	....	85	......	20	446	......	O.H.	.69	......	605
....	1	1	4	8	4	380	......	....	210	1,280	......	1,870	$130	O.H.	3.99	......	606
2	2	1	.....	7	2	435	......	....	60	......	......	495	......	90	1.20	......	607
1	...	1	.....	4	2	505	......	....	198	......	......	703	......	48	2.43	......	608
2	2	1	.....	7	2	460	......	....	210	......	......	670	......	84	1.26	......	609
3	...	2	.....	7	2	400	......	....	180	......	6	586	......	O.H.	1.12	......	610
2	1	2	.....	7	2	416	......	....	141	......	55	612	......	O.H.	1.29	......	611
....	2	1	2	6	3	190	......	....	185	1,044	......	1,419	644	180	3.96	......	612
3	...	1	.....	6	2	300	......	....	36	......	3	339	......	156	.97	......	613
1	2	1	4	9	4	......	......	....	204	900	......	1,104	90	180	1.92	......	614
2	1	1	.....	6	2	315	......	....	73	......	43	431	......	108	1.15	......	615
2	...	1	2	7	4	459	......	....	234	531	......	1,224	......	O.H.	2.72	......	616
1	...	1	3	7	5	500	......	....	220	880	......	1,600	200	O.H.	3.79	......	617
....	1	1	3	7	5	75	......	....	100	960	......	1,135	400	72	2.84	......	618
4	2	1	2	11	3	390	......	....	260	260	4	914	......	100	1.14	......	619
....	...	1	.....	2	1	......	......	....	270	......	......	270	......	O.H.	......	......	620
....	...	1	.....	2	2	......	$228	....	56	......	......	284	......	36	2.19	......	621
2	1	1	2	8	4	125	......	....	80	562	......	767	......	78	1.65	......	622
2	2	1	.....	7	2	256	......	....	92	......	......	348	......	60	.70	......	623
....	...	1	.....	2	2	......	117	....	297	......	......	414	......	33	1.13	......	624
....	...	2	1	5	3	900	......	....	270	750	......	1,920	......	O.H.	6.35	......	625
....	...	1	4	6	4	......	......	....	190	908	79	1,177	414	96	3.16	......	626
1	2	2	1	8	3	338	......	....	252	252	......	842	......	O.H.	1.42	......	627
5	2	1	1	11	3	528	......	....	190	190	160	1,068	......	84	1.53	......	628
2	...	2	1	6	3	......	208	....	264	117	......	589	58	O.H.	1.04	......	629
2	1	1	.....	6	2	1,056	......	....	90	......	......	1,146	......	240	3.38	......	630
1	2	1	1	7	3	300	......	....	230	190	50	770	......	O.H.	1.48	......	631
2	...	1	1	6	2	429	......	....	25	......	42	496	......	84	1.51	......	632
2	2	1	1	8	3	260	......	....	144	148	35	587	......	O.H.	1.06	......	633
1	1	1	1	6	3	228	......	....	61	228	20	537	......	66	1.53	......	634
....	...	1	.....	3	2	576	......	....	46	......	10	632	......	60	3.76	......	635
2	2	1	1	8	3	630	......	....	230	275	......	1,135	15	96	2.18	......	636
3	2	1	1	9	3	450	......	....	135	112	......	697	......	O.H.	1.20	......	637
1	...	1	1	5	3	512	......	....	150	200	......	862	......	60	2.74	......	638
....	1	1	.....	4	2	432	......	....	247	......	36	715	......	96	2.25	......	639
....	...	1	.....	3	2	396	......	....	212	......	......	608	......	96	2.54	......	640
2	...	1	1	6	3	560	......	....	288	39	156	1,043	......	O.H.	2.42	......	641
3	1	1	.....	7	2	380	......	....	179	......	3	562	......	60	1.05	......	642
....	1	1	.....	4	2	632	......	....	214	......	......	846	......	84	3.04	......	643
3	1	1	.....	7	2	980	......	....	208	......	8	1,196	......	150	2.71	......	644
2	1	1	2	8	4	580	......	....	200	487	......	1,267	......	96	2.56	......	645
1	...	1	2	5	3	......	......	....	32	515	......	547	......	108	1.98	......	646
1	3	1	2	9	4	345	......	....	112	400	......	857	......	102	1.59	......	647
4	1	1	1	9	3	600	......	....	17	220	......	837	120	96	1.75	......	648
2	2	1	1	8	3	450	......	....	172	156	26	804	106	120	1.52	......	649
1	1	1	2	6	3	......	......	....	100	676	30	806	......	84	2.26	......	650
....	...	1	1	3	2	......	......	....	105	320	24	449	......	96	2.21	......	651
3	2	1	.....	8	2	300	......	....	200	......	......	500	......	48	.72	......	652
....	...	1	.....	3	2	600	......	....	200	......	144	944	......	O.H.	4.77	......	653

TABLE XXVII.—CHILDREN UNDER 16 YEARS OF AGE AT WORK: AGE, DITION OF THE CHILD AND THE FAMILY, IN

PENNSYLVANIA—Continued.

Family number.	The father.		The child.								Membership of family. Occupation or condition of—	
	Race and nativity.	Yrs. in U. S.	Sex.	Age.	Occupation or industry.	Days worked past year	Earnings past year	Mos. since beginning work.	Can read and write.	Mos. school attendance.	Father.	Mother.
654	American	.....	F.	15	Grinder	256	$128	12	Yes.	64	Dead	Home
655	American	.....	F.	15	Etcher, needle.	200	100	8	Yes.	42	Dead	Home
656	American	.....	F.	15	Selector	160	80	7	Yes.	24	Miner	Home
657	American	.....	F.	15	Washer	300	250	14	Yes.	45	Laborer	Work
658	American	.....	F.	15	Presser	144	132	6	Yes.	70	Idle	Work
659	German, F.	(c)	F.	15	Mold cleaner	235	156	13	Yes.	45	Dead	Home
660	German, N.	.....	F.	15	Packer	180	135	9	Yes.	54	Tin plate worker.	Home
661	Irish, N.	.....	F.	15	Transferer	300	220	12	Yes.	48	Fireman	Home
662	English, F.	27	F.	15	Stamper	100	66	4	Yes.	60	Miner	Home
663	English, F.	19	F.	15	Sorter	275	205	24	Yes.	56	Mason	Home
664	English, F.	35	F.	15	Clerk, undertaker's.	48	40	2	Yes.	72	Laborer	Home
665	English, F.	20	F.	15	Steel	295	250	12	Yes.	40	Dead	Home
666	English, F.	29	F.	15	Marker	240	120	21	Yes.	67	Stable boss.	Home
667	French, F.	5	F.	15	Stamper	220	165	12	Yes.	54	Miner	Dead
668	French, F.	3	F.	15	Leer tender	245	184	36	Yes.	96	Pitman, coal.	Home
669	French, F.	17	F.	15	Wrapper	50	33	2	Yes.	60	Laborer	Home
670	French, F.	18	F.	15	Cut-off	285	237	24	Yes.	63	Grinder	Home
671	German, F.	26	F.	15	Selector	200	166	8	Yes.	65	Butcher	Home
672	German, F.	18	F.	15	Wrapper	200	132	9	Yes.	65	Laborer	Home
673	German, N.	.....	F.	15	Presser	295	250	12	Yes.	60	Laborer	Home
674	German, F.	25	F.	15	Lacquerer	200	236	19	Yes.	60	Teamster	Home
675	German, F.	16	F.	15	Cut-off	75	50	3	Yes.	54	Teacher	Home
676	German, F.	17	F.	15	Cash girl, dep't store.	200	65	(c)	(c)	(c)	Dead	Home
677	German, F.	25	F.	15	Wiper	298	163	12	Yes.	40	Stonemason	Home
678	German, F.	32	F.	15	Polisher	295	175	(c)	(c)	(c)	Laborer	Home
679	German, F.	17	F.	15	Capper	96	48	4	Yes.	72	Dead	Home
680	German, F.	28	F.	15	Decorator	100	50	8	Yes.	65	Laborer	Home
681	German, F.	24	F.	15	Dipper	200	100	9	Yes.	72	Laborer	Home
682	German, F.	21	F.	15	Grinder	250	125	11	Yes.	63	Laborer	Home
683	German, F.	21	F.	15	Capper	50	27	2	Yes.	60	Dead	Home
684	German, F.	20	F.	15	Capper	75	39	3	Yes.	55	Molder	Home
685	German, F.	20	F.	15	Chipper	250	125	16	Yes.	65	Molder	Home
686	German, F.	15	F.	15	Presser	300	306	24	Yes.	48	Deserter	Work
687	Irish, F.	18	F.	15	Wiper	260	148	(c)	(c)	(c)	Dead	Work
688	Irish, F.	17	F.	15	Etcher, needle.	220	110	9	Yes.	72	Laborer	Home
689	Irish, F.	26	F.	15	Wiper	211	92	(c)	(c)	(c)	Millwright's helper.	Home
690	Irish, F.	27	F.	15	Packer, bakery.	60	30	(c)	(c)	(c)	Puddler	Home
691	Irish, N.	.....	F.	15	Wrapper	300	210	24	Yes.	60	Dead	Home
692	Italian, F.	5	F.	15	Stamper	126	84	6	Yes.	30	Laborer	Home
693	Italian, F.	15	F.	15	Wrapper	281	188	12	Yes.	63	Merchant	Home
694	Polish, F.	27	F.	15	Sorter	258	282	24	Yes.	72	Laborer	Home
695	Polish, F.	19	F.	15	Decorator	245	185	41	Yes.	60	Laborer	Home
696	Polish, F.	12	F.	15	Wiper	290	150	(c)	(c)	(c)	Laborer	Home
697	Polish, F.	19	F.	15	Grinder	230	172	18	Yes.	18	Miner	Home
698	Polish, F.	7	F.	15	Wrapper	240	120	12	Yes.	64	Coke drawer.	Home
699	Polish, F.	18	F.	15	Wiper	236	118	12	Yes.	82	Coke drawer.	Home
700	Polish, F.	18	F.	15	Grinder	242	260	10	Yes.	70	Coke drawer.	Home
701	Polish, F.	20	F.	15	Wiper	220	110	9	Yes.	50	Coke drawer.	Home
702	Polish, F.	28	F.	15	Wrapper	180	90	15	Yes.	51	Musician	Home
703	Polish, F.	20	F.	15	Wiper	212	106	12	Yes.	48	Coke drawer.	Home

[a] Estimated value of free rent.

[b] Including $200 life insurance received.

OCCUPATION, AND EDUCATION OF THE CHILD, AND ECONOMIC CON-DETAIL, FOR EACH STATE—Continued.

PENNSYLVANIA—Continued.

Membership of family.						Income of family past year.						Total earnings and income past year.	Am't retained by children 16 years and over.	Rent past year.	Per capita weekly income of family less earnings of children.		Family number.
Children of ages—				Total.	Total wage earners.	Earnings of—					Other.				Under 16.	Under 14.	
						Father.	Mother.	Children—									
Under 10.	10 to 13.	14 and 15.	16 and over.					Under 14.	14 and 15.	16 and over.							
1	1	1	1	5	2	......	......	....	$128	$141	$324	$593	......	*a* $84	$1.79	......	654
5	3	1	1	11	2	......	......	....	100	178	*b* 265	543	......	O.H.	.77	......	655
1	...	1	1	5	2	$220	......	....	80	......	15	315	......	36	.90	......	656
1	1	1	.....	5	3	391	$104	....	250	......	......	745	......	120	1.90	......	657
1	...	1	1	5	3	......	300	....	132	195	52	679	......	162	2.10	......	658
....	...	1	2	4	2	......	......	....	156	270	......	426	......	84	1.30	......	659
1	1	1	.....	5	2	425	......	....	135	......	......	560	......	O.H.	1.63	......	660
....	...	1	1	4	3	600	......	....	220	190	......	1,010	......	72	3.80	......	661
4	2	1	2	11	4	512	......	....	66	356	140	1,074	......	120	1.76	......	662
2	2	1	2	9	4	780	......	....	205	196	18	1,199	......	O.H.	2.12	......	663
....	1	1	2	6	4	120	......	....	40	437	......	597	......	O.H.	1.79	......	664
1	...	1	2	5	3	......	......	....	250	490	......	740	......	156	1.88	......	665
....	...	2	.....	4	2	528	......	....	120	......	......	648	......	78	2.54	......	666
....	...	1	1	3	3	400	......	....	165	183	150	898	......	O.H.	4.70	......	667
1	1	1	1	6	3	499	......	....	184	168	......	851	......	84	2.14	......	668
2	1	1	.....	6	2	255	......	....	33	......	......	288	......	84	.82	......	669
....	...	1	1	4	3	675	......	....	237	218	96	1,226	......	O.H.	4.75	......	670
3	2	1	.....	8	2	624	......	....	166	......	......	790	......	O.H.	1.50	......	671
4	1	2	2	11	4	1,092	......	....	132	454	42	1,720	......	O.H.	2.78	......	672
3	2	1	1	9	3	193	......	....	250	300	......	743	$50	168	1.05	......	673
1	...	1	3	7	4	432	......	....	236	764	......	1,432	364	168	3.29	......	674
4	1	1	1	9	3	780	......	....	50	240	......	1,070	......	120	2.18	......	675
....	...	1	1	3	2	......	......	....	65	196	156	417	......	O.H.	2.26	......	676
....	...	1	.....	3	2	764	......	....	163	......	192	1,119	......	O.H.	6.13	......	677
....	1	1	4	8	6	614	......	....	175	894	......	1,683	......	156	3.63	......	678
....	...	1	2	4	3	......	......	....	48	588	......	636	......	120	2.83	......	679
1	1	1	1	6	3	412	......	....	50	150	57	669	......	O.H.	1.98	......	680
1	1	1	1	6	3	525	......	....	100	162	25	812	......	O.H.	2.28	......	681
4	1	1	1	9	2	308	......	....	125	......	......	433	......	O.H.	.66	......	682
1	1	2	3	8	4	......	......	....	27	1,025	......	1,052	......	O.H.	2.46	......	683
2	2	1	.....	7	2	756	......	....	39	......	......	795	......	180	2.08	......	684
4	2	1	.....	9	2	550	......	....	125	......	......	675	......	15	1.18	......	685
3	...	1	1	6	3	......	120	....	306	180	*d* 30	636	......	192	1.06	......	686
....	...	1	.....	2	2	......	200	....	148	......	30	378	......	96	2.21	......	687
4	2	1	1	10	3	440	......	....	110	185	60	795	......	O. H.	1.32	......	688
5	2	1	1	11	3	678	......	....	92	96	38	904	......	240	1.42	......	689
1	...	1	1	5	3	604	......	....	30	126	50	810	......	144	3.00	......	690
....	...	1	3	5	4	......	......	....	210	851	90	1,151	401	180	3.62	......	691
1	1	1	1	6	3	419	......	....	84	84	......	587	......	60	1.61	......	692
4	1	1	.....	8	2	670	......	....	188	......	......	858	......	O.H.	1.61	......	693
2	2	1	1	8	3	459	......	....	282	275	96	1,112	......	O.H.	2.00	......	694
3	1	1	.....	7	2	331	......	....	185	......	......	516	......	72	.91	......	695
....	1	1	.....	4	2	412	......	....	150	......	......	562	......	96	1.98	......	696
1	2	1	.....	6	2	332	......	....	172	......	10	514	......	84	1.10	......	697
3	1	1	.....	7	2	173	......	....	120	......	20	313	......	36	.53	......	698
5	2	1	1	11	3	300	......	....	118	141	47	606	......	78	.85	......	699
3	2	1	.....	8	2	270	......	....	260	......	......	530	......	72	.65	......	700
1	1	1	.....	5	2	270	......	....	110	......	30	410	......	48	1.15	......	701
4	1	1	1	9	3	40	......	....	90	187	12	329	......	66	.51	......	702
4	2	1	1	10	3	139	......	....	106	139	......	384	......	66	.53	......	703

c Not reported.

d Amount of life insurance received.

TABLE XXVII.—CHILDREN UNDER 16 YEARS OF AGE AT WORK: AGE, DITION OF THE CHILD AND THE FAMILY, IN

PENNSYLVANIA—Concluded.

Family number	The father.		The child.								Membership of family.	
											Occupation or condition of—	
	Race and nativity.	Yrs. in U.S.	Sex.	Age.	Occupation or industry.	Days worked past year	Earnings past year.	Mos. since beginning work.	Can read and write.	Mos. school attendance.	Father.	Mother.
704	Russian, F.	19	F.	15	Sorter	225	$168	18	Yes.	60	Miner	Home
705	English, F.	20	F.	15	Presser	307	112	24	Yes.	60	Longshoreman.	Home
706	Slav, F.	23	F.	15	Decorator	240	160	18	Yes.	60	Mixer	Home
707	Slav, F.	22	F.	15	Wrapper	240	120	24	Yes.	32	Dead	Home
708	Slav, F.	21	F.	15	Cut-off	246	123	14	Yes.	54	Incapac	Home
709	Slav, F.	22	F.	15	Cut-off	218	109	24	Yes.	40	Coke drawer.	Home
710	Slav, F.	12	F.	15	Cut-off	242	121	12	Yes.	48	Coke drawer.	Home
711	Slav, F.	23	F.	15	Wiper	248	124	12	Yes.	18	Dead	Home
712	Slav, F.	18	F.	15	Grinder	236	118	25	Yes.	48	Incapac	Home
713	Slav, F.	1	F.	15	Selector	240	160	12	Yes.	62	Coke drawer.	Home
714	Slovak, F.	20	F.	15	Sorter	96	72	4	Yes.	63	Miner	Home

OHIO.

Family number	Race and nativity.	Yrs. in U.S.	Sex.	Age.	Occupation or industry.	Days worked past year	Earnings past year.	Mos. since beginning work.	Can read and write.	Mos. school attendance.	Father.	Mother.
1	American	.....	M.	13	Snap-up	18	$13	8	Yes.	50	Laborer	Work
2	American	.....	M.	13	Carry-in	138	138	6	Yes.	70	Conductor	Home
3	German, N.	.....	M.	13	Carry-in	50	37	2	Yes.	40	Helper	Home
4	German, F.	30	M.	13	Snap-up	25	18	1	Yes.	54	Engineer	Home
5	American	.....	M.	14	Stick-up	193	173	18	Yes.	45	Millwright	Home
6	American	.....	M.	14	Stick-up	250	208	12	Yes.	48	Miner	Home
7	American	.....	M.	14	Stick-up	208	187	7	Yes.	80	Plasterer	Home
8	American	.....	M.	14	Stick-up	168	151	7	Yes.	63	Dead	Home
9	American	.....	M.	14	Snap-up	25	18	1	Yes.	60	Teamster	Home
10	American	.....	M.	14	Snap-up	150	112	8	Yes.	58	Miner	Home
11	American	.....	M.	14	Mold boy	100	75	4	Yes.	55	Meat dealer	Home
12	American	.....	M.	14	Snap-up	75	56	3	Yes.	55	Laborer	Home
13	American	.....	M.	14	Snap-up	125	125	5	Yes.	55	Laborer	Home
14	American	.....	M.	14	Carry-in	48	50	3	Yes.	80	Painter	Home
15	American	.....	M.	14	Carry-over	144	132	10	Yes.	72	Fireman	Home
16	American	.....	M.	14	Carry-over	144	132	6	Yes.	42	Carpenter	Home
17	American	.....	M.	14	Carry-over	135	135	8	Yes.	65	Painter	Home
18	American	.....	M.	14	Carry-in	175	175	7	Yes.	70	Motorman	Home
19	American	.....	M.	14	Carry-in	304	319	12	Yes.	80	Repairer	Home
20	American	.....	M.	14	Carry-in	78	78	3	Yes.	70	Heater	Home
21	American	.....	M.	14	Carry-in	220	238	12	Yes.	56	Engineer	Home
22	American	.....	M.	14	Snap-up	62	46	3	Yes.	68	Laborer	Work
23	American	.....	M.	14	Carry-over	300	285	12	Yes.	30	Carpenter	Work
24	American	.....	M.	14	Mold boy	104	93	4	Yes.	55	Deserter	Work
25	American	.....	M.	14	Crack-off	221	204	10	Yes.	60	Dead	Work
26	American	.....	M.	14	Carry-in	240	273	12	Yes.	63	Dead	Work
27	English, N.	.....	M.	14	Carry-in	39	39	2	Yes.	70	Dead	Work
28	German, N.	.....	M.	14	Snap-up	100	75	5	Yes.	50	Miner	Home
29	German, N.	.....	M.	14	Carry-in	75	56	3	Yes.	55	Miner	Home
30	German, N.	.....	M.	14	Snap-up	115	86	7	Yes.	60	Machinist	Home
31	German, N.	.....	M.	14	Snap-up	100	75	5	Yes.	64	Blower	Home
32	German, N.	.....	M.	14	Take-out	100	100	4	Yes.	50	Furnace man.	Home
33	German, N.	.....	M.	14	Snap-up	216	218	24	Yes.	54	Laborer	Home
34	German, N.	.....	M.	14	Mold boy	100	75	5	Yes.	65	Machinist	Work
35	German, N.	.....	M.	14	Snap-up	125	93	5	Yes.	65	Dead	Work
36	Irish, N.	.....	M.	14	Mold boy	150	112	8	Yes.	55	Dead	Work
37	Irish, N.	.....	M.	14	Carry-in	156	177	8	Yes.	70	Plumber's helper.	Home
38	Irish, N.	.....	M.	14	Carry-in	156	164	6	Yes.	72	Heater	Home
39	Irish, N.	.....	M.	14	Glazer	169	169	7	Yes.	70	Truckman	Home

[a] Including 1 other member.

OCCUPATION, AND EDUCATION OF THE CHILD, AND ECONOMIC CON- DETAIL, FOR EACH STATE—Continued.

PENNSYLVANIA—Concluded.

Membership of family.						Income of family past year.						Total earnings and income past year.	Am't retained by children 16 years and over.	Rent past year.	Per capita weekly income of family less earnings of children.		Family number.
Children of ages—				Total.	Total wage earners.	Earnings of—					Other.						
						Father.	Mother.	Children—							Under 16.	Under 14.	
Under 10.	10 to 13.	14 and 15.	16 and over.					Under 14.	14 and 15.	16 and over.							
2	1	1	.....	6	2	$375	......	....	$168	......	....	$543	......	O.H.	$1.20	......	704
2	1	1	1	7	3	780	......	....	112	$434	$10	1,336	......	$132	3.36	......	705
2	2	1	1	8	2	321	......	....	160	......	91	572	......	O.H.	.99	......	706
1	1	1	.....	4	1	......	......	....	120	......	48	168	......	36	.23	......	707
....	...	1	2	5	3	......	......	....	123	384	118	625	......	O.H.	1.93	......	708
1	...	1	1	a 6	3	170	......	....	109	391	12	682	......	O.H.	1.84	......	709
5	1	1	.....	9	2	200	......	....	121	......	....	321	......	39	.43	......	710
1	2	1	3	8	4	......	......	....	124	663	35	822	......	O.H.	1.68	......	711
2	2	1	1	8	2	......	......	....	118	121	55	294	......	O.H.	.42	......	712
1	...	1	.....	4	2	340	......	....	160	......	30	530	......	48	1.78	......	713
1	2	1	.....	6	2	786	......	....	72	......	143	1,001	......	O.H.	2.98	......	714

OHIO.

Under 10.	10 to 13.	14 and 15.	16 and over.	Total.	Total wage earners.	Father.	Mother.	Children under 14.	Children 14 and 15.	Children 16 and over.	Other.	Total earnings and income past year.	Am't retained by children 16 years and over.	Rent past year.	Under 16.	Under 14.	Family number.
2	2	....	1	7	4	$225	$37	$13	.....	$225	....	$500	......	O.H.	$1.34	$1.34	1
1	2	1	.....	6	2	602	......	138	.....	......	$3	743	......	$96	1.94	1.94	2
....	1	....	.....	a 4	2	300	......	37	.....	......	4	341	......	O.H.	1.46	1.46	3
....	2	....	1	5	3	500	......	18	.....	420	10	948	$190	O.H.	3.58	3.58	4
1	1	1	1	6	3	345	......	....	$173	288	....	806	......	108	2.03	......	5
2	1	1	.....	6	2	440	......	....	208	......	....	648	......	108	1.41	......	6
2	...	1	5	10	6	750	......	....	187	2,126	....	3,063	1,346	O.H.	5.53	......	7
1	...	1	2	5	3	......	......	....	151	1,169	....	1,320	595	216	4.50	......	8
....	...	1	2	5	3	600	......	....	18	225	95	938	......	O.H.	3.54	......	9
....	2	1	1	6	3	384	......	....	112	254	10	760	......	O.H.	2.08	......	10
....	...	1	.....	3	2	250	......	....	75	......	75	400	......	O.H.	2.08	......	11
....	1	1	1	5	3	300	......	....	56	343	10	709	......	O.H.	2.51	......	12
1	1	1	.....	5	2	337	......	....	125	......	8	470	......	60	1.33	......	13
1	1	1	2	7	4	339	......	....	50	480	....	869	116	150	2.25	......	14
4	...	1	.....	7	2	276	......	....	132	......	....	408	......	96	.76	......	15
2	1	2	.....	7	2	408	......	....	132	......	32	572	......	120	1.21	......	16
6	1	1	2	12	3	464	......	....	135	695	18	1,312	232	192	1.89	......	17
3	1	1	.....	7	2	560	......	....	175	......	1	736	......	132	1.54	......	18
2	...	1	.....	5	2	480	......	....	319	......	....	799	......	O.H.	1.85	......	19
....	...	1	3	6	5	704	......	....	78	683	....	1,465	481	108	4.45	......	20
....	1	1	.....	4	2	546	......	....	238	......	....	784	......	36	2.63	......	21
....	...	1	.....	3	3	337	75	....	46	......	5	463	......	O.H.	2.67	......	22
3	1	1	1	8	3	360	94	....	285	......	....	739	......	O.H.	1.09	......	23
....	...	1	3	5	4	......	96	....	93	673	....	862	......	120	2.96	......	24
1	...	1	.....	3	2	......	221	....	204	......	....	425	......	72	1.42	......	25
....	1	1	2	5	4	......	26	....	273	858	144	1,301	642	72	3.95	......	26
....	2	1	1	5	3	......	235	....	39	250	....	524	......	168	1.87	......	27
3	1	1	.....	7	2	384	......	....	75	......	20	479	......	O.H.	1.11	......	28
....	1	1	.....	4	2	576	......	....	56	......	55	687	......	72	3.03	......	29
....	1	1	1	5	3	500	......	....	86	65	....	651	......	O.H.	2.17	......	30
5	2	1	3	13	3	1,350	......	....	75	150	25	1,600	......	120	2.26	......	31
3	1	1	1	8	2	506	......	....	100	......	15	621	......	96	1.25	......	32
1	1	1	1	6	3	318	......	....	218	134	....	670	......	96	1.45	......	33
3	...	1	1	7	3	656	125	....	75	......	5	861	......	O.H.	2.16	......	34
1	2	1	2	7	4	......	182	....	93	330	2	607	......	O.H.	1.41	......	35
2	...	1	1	5	3	......	150	....	112	150	100	512	......	132	1.54	......	36
3	1	1	.....	7	2	312	......	....	177	......	50	539	......	O.H.	.99	......	37
2	1	1	2	8	4	828	......	....	164	786	25	1,803	162	O.H.	3.94	......	38
....	1	1	.....	4	2	408	......	....	169	......	....	577	......	144	1.96	......	39

TABLE XXVII.—CHILDREN UNDER 16 YEARS OF AGE AT WORK: AGE, DITION OF THE CHILD AND THE FAMILY, IN

OHIO—Continued.

Family number.	The father.		The child.								Membership of family.	
											Occupation or condition of—	
	Race and nativity.	Yrs. in U. S.	Sex.	Age.	Occupation or industry.	Days worked past year.	Earnings past year.	Mos. since beginning work.	Can read and write.	Mos. school attendance.	Father.	Mother.
40	Irish, N.		M.	14	Laborer, bakery.	72	$72	3	Yes.	63	Incapac.	Home
41	Irish, N.		M.	14	Carry-in.	12	13	1	Yes.	72	Tester.	Home
42	Irish, N.		M.	14	Stick-up.	18	16	3	Yes.	68	Yard boss.	Home
43	English, F.	1	M.	14	Water boy.	50	37	3	Yes.	50	Laborer.	Home
44	German, F.	27	M.	14	Snap-up.	125	93	5	Yes.	60	Miner.	Home
45	German, F.	32	M.	14	Snap-up.	175	134	9	Yes.	65	Laborer.	Home
46	German, F.	27	M.	14	Snap-up.	125	93	5	Yes.	55	Incapac.	Home
47	German, F.	39	M.	14	Carry-in.	175	150	9	Yes.	60	Rougher.	Home
48	German, F.	37	M.	14	Snap-up.	150	112	8	Yes.	50	Deserter.	Home
			M.	14	Snap-up.	150	112	8	Yes.	55		
49	German, F.	36	M.	14	Mold boy.	125	93	5	Yes.	58	Dead.	Home
50	German, F.	24	M.	14	Snap-up.	100	75	4	Yes.	60	Dead.	Home
51	German, F.	35	M.	14	Snap-up.	100	75	5	Yes.	54	Miner.	Home
52	German, F.	25	M.	14	Carry-in.	225	168	17	Yes.	50	Miner.	Home
53	German, F.	27	M.	14	Mold boy.	250	187	17	Yes.	55	Miner.	Home
54	German, F.	17	M.	14	Carry-in.	162	121	17	Yes.	58	Miner.	Home
55	German, F.	25	M.	14	Snap-up.	162	162	9	Yes.	55	Miner.	Home
56	German, F.	19	M.	14	Snap-up.	125	93	5	Yes.	58	Miner.	Home
57	German, F.	20	M.	14	Compositor, printing.	300	150	18	Yes.	50	Dead.	Home
58	German, F.	16	M.	14	Mold boy.	36	41	2	Yes.	72	Shoemaker.	Home
59	Irish, F.	24	M.	14	Ball boy.	130	136	5	Yes.	63	Laborer.	Home
60	Irish, F.	22	M.	14	Carry-in.	72	72	5	Yes.	63	Laborer.	Home
61	Polish, F.	8	M.	14	Mold boy.	290	227	19	Yes.	40	Mason.	Sep'd
62	English, F.	30	M.	14	Carry-in.	240	231	36	No.	27	Deserter.	Work
63	English, F.	24	M.	14	Snap-up.	175	131	9	Yes.	50	Dead.	Home
64	Slav, F.	6	M.	14	Mold boy.	240	245	(*a*)	(*a*)	(*a*)	Miner.	Home
65	Welsh, F.	15	M.	14	Carry-over.	13	15	3	Yes.	75	Doubler.	Home
66	American.		F.	14	Sorter.	168	116	9	Yes.	63	Dead.	Home
67	French, F.	34	M	14	Mold boy.	18	19	1	Yes.	63	Laborer.	Home
			M.	15	Carry-in.	240	240	18	Yes.	54		
68	German, N.		M.	14	Mold boy.	125	93	5	Yes.	58	Miner.	Home
			M.	15	Snap-up.	225	168	17	Yes.	55		
69	German, N.		M.	14	Snap-up.	52	65	6	Yes.	80	Stonecutter.	Home
			M.	15	Mold-boy.	104	146	18	Yes.	70		
70	German, F.	19	M.	14	Water boy.	40	30	2	Yes.	60	Shearer.	Home
			M.	15	Take-out.	175	131	9	Yes.	60		
71	Amer., col.		M.	14	Carry-in.	180	180	10	Yes.	80	Teamster.	Work
			F.	15	Domestic.	12	9	1	Yes.	90		
72	Amer., col.		M.	15	Carry-in.	304	295	18	Yes.	48	Laborer.	Home
73	American.		M.	15	Carry-in.	126	103	5	Yes.	72	Band cutter, steel.	Dead
74	American.		M.	15	Stick-up.	284	234	13	Yes.	27	Laborer.	Home
75	American.		M.	15	Stick-up.	52	47	2	Yes.	70	Carpenter.	Home
76	American.		M.	15	Mold boy.	288	380	18	Yes.	68	Carpenter.	Home
77	American.		M.	15	Carry-in.	208	260	20	Yes.	70	Painter.	Home
78	American.		M.	15	Water boy.	25	18	1	Yes.	65	Brakeman.	Home
79	American.		M.	15	Carry-in.	240	202	12	Yes.	55	Laborer.	Home
80	American.		M.	15	Carry-in.	250	231	15	Yes.	60	Head furnaceman.	Home
81	American.		M.	15	Snap-up.	200	150	11	Yes.	55	Toolmaker.	Home
82	American.		M.	15	Snap-up.	75	56	9	Yes.	60	Track greaser.	Home
83	American.		M.	15	Carry-in.	240	228	12	Yes.	70	Presser.	Home
84	American.		M.	15	Carry-in.	144	145	6	Yes.	16	Fireman.	Home
85	American.		M.	15	Stick-up.	240	303	53	Yes.	45	Clerk.	Dead
86	American.		M.	15	Carry-in.	240	242	12	Yes.	69	Incapac.	Home
87	American.		M.	15	Machine boy	42	38	2	Yes.	72	Presser.	Home
88	American.		M.	15	Machine boy	168	139	7	Yes.	72	Dead.	Home
89	American.		M.	15	Carry-in.	192	153	60	Yes.	36	Gatherer.	Home
90	American.		M.	15	Machine boy	240	308	30	Yes.	45	Laborer.	Home

a Not reported.

OCCUPATION, AND EDUCATION OF THE CHILD AND ECONOMIC CONDETAIL, FOR EACH STATE—Continued.

OHIO—Continued.

Membership of family.						Income of family past year.						Total earnings and income past year.	Am't retained by children 16 years and over.	Rent past year.	Per capita weekly income of family less earnings of children.		Family number.
Children of ages—				Total.	Total wage earners.	Earnings of—					Other.						
Under 10.	10 to 13.	14 and 15.	16 and over.			Father.	Mother.	Children—							Under 16.	Under 14.	
								Under 14.	14 and 15.	16 and over.							
2	...	1	2	7	3	......	......	....	$72	$312	......	$384	......	$144	$0.86	......	40
....	...	1	1	4	3	$821	......	....	13	216	......	1,050	......	150	4.99	......	41
1	1	1	3	8	4	400	......	....	16	412	......	828	$78	180	1.95	......	42
....	...	1	1	4	3	187	......	....	37	187	$8	419	......	84	1.84	......	43
4	2	2	2	12	3	512	......	....	93	375	15	995	......	O.H.	1.45	......	44
1	1	1	2	7	4	400	......	....	134	401	16	951	85	O.H.	2.24	......	45
....	...	1	3	6	3	......	......	....	93	975	50	1,118	533	O.H	3.29	......	46
4	2	1	.....	9	2	750	......	....	150	......	5	905	......	O.H.	1.61	......	47
1	...	2	2	6	4	......	......	....	224	20	30	274	......	O.H.	.16	......	48
....	...	1	2	4	3	......	......	....	93	517	......	610	......	120	2.49	......	49
....	...	1	2	4	3	......	......	....	75	600	10	685	30	O.H.	2.93	......	50
3	1	1	2	9	4	256	......	....	75	300	25	656	......	O.H.	1.24	......	51
2	2	1	3	10	4	384	......	....	168	609	45	1,206	......	O.H.	2.00	......	52
2	1	1	3	9	5	512	......	....	187	874	30	1,603	372	O.H.	3.03	......	53
....	...	1	.....	3	2	384	......	....	121	......	20	525	......	O.H.	2.59	......	54
....	1	1	.....	4	2	384	......	....	162	......	50	596	......	O.H.	2.09	......	55
....	2	1	2	7	3	576	......	....	93	312	3	984	......	O.H.	2.45	......	56
....	1	1	4	7	5	......	......	....	150	1,094	......	1,244	110	O.H.	3.01	......	57
....	2	1	.....	5	2	300	......	....	41	......	......	341	......	120	1.15	......	58
4	2	1	1	10	3	480	......	....	136	500	208	1,324	......	O.H.	2.28	......	59
4	1	2	1	10	3	306	......	....	72	360	......	738	......	192	1.28	......	60
....	...	1	1	3	2	400	......	....	227	......	5	632	......	48	2.60	......	61
1	1	2	.....	5	2	......	$156	....	231	......	24	411	......	60	.69	......	62
....	2	1	3	7	4	......	......	....	131	720	5	856	......	84	1.99	......	63
2	...	1	.....	5	2	252	......	....	245	......	......	497	......	96	.97	......	64
3	1	1	2	9	4	1,200	......	....	15	714	......	1,929	......	108	4.09	......	65
....	...	1	2	4	3	......	......	....	116	440	......	556	200	120	2.12	......	66
....	1	2	3	8	6	330	......	....	259	888	......	1,477	322	150	2.93	......	67
....	...	2	.....	4	3	512	......	....	261	......	115	888	......	O.H.	3.01	......	68
1	2	2	.....	7	3	728	......	....	211	......	1	940	......	60	2.00	......	69
1	1	2	1	7	4	412	......	....	161	450	5	1,028	350	O.H.	2.38	......	70
....	...	2	.....	4	4	444	155	....	189	......	10	798	......	O.H.	2.93	......	71
2	...	1	2	7	4	356	......	....	307	485	50	1,198	......	O.H.	2.45	......	72
....	...	1	4	6	6	720	......	....	103	1,901	......	2,724	......	66	8.40	......	73
1	...	1	.....	4	2	465	......	....	234	......	......	699	......	96	2.24	......	74
4	...	1	3	10	4	302	......	....	47	326	208	883	131	144	1.61	......	75
2	1	1	1	7	3	410	......	....	380	234	51	1,075	102	132	1.91	......	76
2	1	1	3	9	5	520	......	....	260	1,788	......	2,568	1,060	204	4.93	......	77
1	1	1	.....	5	2	517	......	....	18	......	15	550	......	144	2.05	......	78
4	1	1	.....	8	2	225	......	....	202	......	26	453	......	102	.60	......	79
4	1	1	.....	8	2	1,200	......	....	231	......	19	1,450	......	O.H.	2.93	......	80
....	...	1	.....	3	2	333	......	....	150	......	50	533	......	O.H.	2.46	......	81
....	...	1	.....	3	2	487	......	....	56	......	......	543	......	120	3.12	......	82
....	2	1	.....	5	2	880	......	....	228	......	......	1,108	......	192	3.38	......	83
....	...	1	3	[b]7	5	728	......	....	145	606	......	1,479	200	150	3.66	......	84
....	...	1	1	[b]4	3	600	......	....	303	303	62	1,268	......	180	4.64	......	85
....	1	1	3	7	4	......	......	....	242	621	353	1,216	52	O.H.	2.68	......	86
1	1	1	.....	5	2	1,080	......	....	38	......	......	1,118	......	180	4.15	......	87
....	1	1	1	4	2	......	......	....	139	470	104	713	262	60	2.76	......	88
4	...	1	1	8	3	432	......	....	153	293	......	878	......	120	1.74	......	89
....	...	1	1	4	3	528	......	....	308	528	......	1,364	......	168	5.08	......	90

[b] Including 1 other member.

TABLE XXVII.—CHILDREN UNDER 16 YEARS OF AGE AT WORK: AGE, DITION OF THE CHILD AND THE FAMILY, IN

OHIO—Continued.

Family number.	The father.		The child.								Membership of family.	
	Race and nativity.	Yrs. in U. S.	Sex.	Age.	Occupation or industry.	Days worked past year.	Earnings past year.	Mos. since beginning work.	Can read and write.	Mos. school attendance.	Occupation or condition of—	
											Father.	Mother.
91	American...	.....	M.	15	Carry-in.....	310	$295	19	Yes.	63	Laborer....	Home
			M.	14	Carry-in.....	70	70	(a)	Yes.	75		
92	American...	.....	M.	15	Crack-off....	295	295	18	Yes.	80	Laborer....	Home
93	American...	.....	M.	15	Helper, chain works.	234	163	10	Yes.	75	Laborer....	Home
94	American...	.....	M.	15	Machine boy	126	151	18	Yes.	60	Carpenter..	Home
95	American...	.....	M.	15	Carry-in.....	130	130	4	Yes.	70	Fireman...	Home
96	American...	.....	M.	15	Carry-in.....	304	265	13	Yes.	58	Sweeper....	Home
97	American...	.....	M.	15	Machine boy	126	189	30	Yes.	72	Carpenter..	Home
98	American...	.....	M.	15	Mold boy...	240	221	18	Yes.	56	Laborer....	Home
99	American...	.....	M.	15	Carry-in.....	264	254	12	Yes.	63	Carpenter..	Home
100	American...	.....	M.	15	Carry-in.....	52	55	2	Yes.	80	Teamster...	Home
101	American...	.....	M.	15	Carry-over..	65	68	3	Yes.	72	Laborer....	Home
102	American...	.....	M.	15	Mold boy...	12	14	1	Yes.	81	Gas maker.	Home
103	American...	.....	M.	15	Carry-in.....	240	273	36	Yes.	66	Teamster..	Home
104	American...	.....	M.	15	Carry-in.....	234	263	39	Yes.	54	Dead.......	Dead
105	American...	.....	M.	15	Carry-in.....	180	199	8	Yes.	64	Laborer....	Home
106	American...	.....	M.	15	Handy boy, cooperage.	204	167	12	Yes.	60	Dead.......	Home
107	American...	.....	M.	15	Mold boy...	240	298	38	Yes.	72	Away......	Work
108	American...	.....	M.	15	Carry-in.....	166	158	9	Yes.	70	Divorced...	Work
109	American...	.....	M.	15	Crack-off....	306	306	24	Yes.	50	Carpenter..	Work
110	American...	.....	M.	15	Spare boy...	144	48	6	Yes.	63	Presser.....	Work
111	American...	.....	M.	15	Carry-in.....	216	239	24	Yes.	45	Laborer....	Work
112	American...	.....	M.	15	Crack-off....	118	118	5	Yes.	79	Divorced...	Work
113	American...	.....	M.	15	Carry-in.....	240	252	12	Yes.	72	Divorced...	Work
114	American...	.....	M.	15	Snap-up.....	250	187	17	Yes.	60	Dead.......	Work
115	American...	.....	M.	15	Helper, chain works.	155	109	12	Yes.	64	Dead.......	Work
116	English, N..	.....	M.	15	Snap-up.....	87	65	4	Yes.	50	Dead.......	Work
117	English, N..	.....	M.	15	Carry-in.....	240	260	25	Yes.	63	Miner......	Home
			M.	15	Carry-in.....	240	259	18	Yes.	63		
118	English, N..	.....	M.	15	Carry-in.....	192	176	11	Yes.	72	Foreman...	Home
119	French, N...	.....	M.	15	Mold boy...	168	146	9	Yes.	42	Miner......	Home
120	French, N..	.....	M.	15	Machine boy	240	240	24	Yes.	32	Miner......	Home
121	German, N..	.....	M.	15	Carry-in.....	240	211	21	Yes.	45	Dead.......	Home
122	German, N..	.....	M.	15	Snap-up.....	125	125	5	Yes.	55	Miner......	Home
123	German, N..	.....	M.	15	Take-off.....	240	240	17	Yes.	60	Blower.....	Home
124	German, N..	.....	M.	15	Carry-over..	180	178	22	Yes.	80	Welder.....	Home
125	German, N..	.....	M.	15	Carry-in.....	192	194	19	Yes.	72	Miner......	Home
126	German, N..	.....	M.	15	Glazer.......	310	320	12	Yes.	64	Dead.......	Home
127	Irish, N.....	.....	M.	15	Ball boy....	240	273	48	Yes.	67	Teamster..	Home
128	Irish, N.....	.....	M.	15	Carry-in.....	240	348	54	Yes.	36	Dead.......	Home
129	Irish, N.....	.....	M.	15	Carry-in.....	148	155	6	Yes.	80	Iron worker	Home
130	Irish, N.....	.....	M.	15	Snap-up.....	192	176	25	Yes.	72	Presser.....	Home
131	Irish, N.....	.....	M.	15	Machine boy	144	165	6	Yes.	72	Divorced...	Work
132	Irish, N.....	.....	M.	15	Mold boy...	125	93	5	Yes.	55	Incapac....	Work
133	English, N..	.....	M.	15	Snap-up.....	150	112	12	Yes.	50	Laborer....	Work
134	Bohem., F..	26	M.	15	Stick-up....	240	275	21	Yes.	54	Brewery agent.	Home
135	English, F..	(a)	M.	15	Snap-up.....	290	145	12	Yes.	60	Dead.......	Work
136	English, F..	8	M.	15	Carry-in.....	175	131	9	Yes.	60	Blower.....	Home
137	English, F..	20	M.	15	Snap-up.....	225	200	11	Yes.	55	Dead.......	Home
138	French, F...	3	M.	15	Carry-in.....	303	303	12	Yes.	20	Blower.....	Home
139	French, F...	20	M.	15	Spare boy...	222	255	24	Yes.	50	Kettleman.	Home
140	French, F...	25	M.	15	Carry-in.....	50	50	4	Yes.	55	Laborer....	Home
141	French, F...	30	M.	15	Mold boy...	192	176	12	Yes.	56	Miner......	Home
142	German, F..	30	M.	15	Mold boy...	125	93	5	Yes.	50	Incapac....	Work
143	German, F..	37	M.	15	Bootblack...	18	12	1	Yes.	80	Dead.......	Home
144	German, F..	24	M.	15	Snap-up.....	214	235	36	Yes.	56	Miner......	Home
145	German, F..	24	M.	15	Snap-up.....	165	190	13	Yes.	65	Carpenter..	Home
146	German, F..	27	M.	15	Snap-up.....	125	125	5	Yes.	60	Carpenter..	Home
147	German, F..	26	M.	15	Snap-up.....	125	93	5	Yes.	60	Dead.......	Home

a Not reported.

OCCUPATION, AND EDUCATION OF THE CHILD, AND ECONOMIC CONDETAIL, FOR EACH STATE—Continued.

OHIO—Continued.

Membership of family.						Income of family past year.						Total earnings and income past year.	Am't retained by children 16 years and over.	Rent past year.	Per capita weekly income of family less earnings of children.		Family number.
Children of ages—				Total.	Total wage earners.	Earnings of—					Other.						
						Father.	Mother.	Children—									
Under 10.	10 to 13.	14 and 15.	16 and over.					Under 14.	14 and 15.	16 and over.					Under 16.	Under 14.	
....	1	2	.....	5	3	$600	......	....	$365	......	....	$965	......	$144	$2.31	......	91
....	...	1	1	4	2	500	......	....	295	......	....	795	......	84	2.40	......	92
3	1	1	1	8	3	496	......	....	163	$390	$3	1,052	$90	120	2.14	......	93
4	...	1	1	8	3	750	......	....	151	375	....	1,276	291	108	2.70	......	94
....	1	1	2	6	3	620	......	....	130	1,050	18	1,818	......	192	5.41	......	95
....	2	1	2	7	3	730	......	....	265	386	....	1,381	242	144	3.07	......	96
....	...	1	.....	3	2	618	......	....	189	......	....	807	......	144	3.96	......	97
2	3	1	.....	8	2	378	......	....	221	......	8	607	......	84	.93	......	98
2	2	1	.....	7	2	708	......	....	254	......	....	962	......	102	1.95	......	99
....	...	1	1	4	3	675	......	....	55	900	....	1,630	800	O.H.	7.57	......	100
....	...	1	1	4	3	218	......	....	68	377	....	663	......	108	2.86	......	101
3	...	2	3	10	5	300	......	....	14	2,112	....	2,426	1,190	144	4.64	......	102
2	1	2	.....	7	2	850	......	....	273	......	....	1,123	......	126	2.34	......	103
....	1	1	1	4	2	....	......	....	263	313	....	576	......	96	1.50	......	104
....	...	1	.....	3	2	248	......	....	199	......	10	457	......	O.H.	1.65	......	105
3	2	1	2	9	3	....	......	....	167	1,065	111	1,343	405	48	2.51	......	106
....	1	1	.....	3	2	....	$300	....	298	......	....	598	......	84	1.92	......	107
....	...	1	.....	2	2	....	194	....	158	......	20	372	......	156	2.06	......	108
2	1	1	1	7	4	605	143	....	306	363	....	1,417	363	168	3.05	......	109
2	1	1	.....	6	3	972	36	....	48	......	....	1,056	......	132	3.23	......	110
....	2	1	1	6	4	72	104	....	239	240	144	799	160	60	1.79	......	111
....	...	1	.....	2	2	....	257	....	118	......	....	375	......	120	2.47	......	112
4	2	1	.....	8	2	....	156	....	252	......	....	408	......	60	.38	......	113
2	...	1	1	5	3	....	200	....	187	188	....	575	......	84	1.49	......	114
....	1	1	2	5	4	....	179	....	109	395	....	683	......	132	2.21	......	115
....	1	1	.....	3	2	....	50	....	65	......	47	162	......	84	.62	......	116
1	2	2	4	11	7	384	......	....	519	1,140	126	2,169	444	240	2.88	......	117
5	1	2	.....	10	2	1,224	......	....	176	......	....	1,400	......	144	2.35	......	118
1	1	1	1	6	2	288	......	....	146	......	86	520	......	O.H.	1.20	......	119
1	...	1	1	5	2	361	......	....	240	......	56	657	......	O.H.	1.60	......	120
....	...	1	2	4	3	....	......	....	211	871	10	1,092	247	O.H.	4.24	......	121
2	1	1	2	8	3	640	......	....	125	150	101	1,016	......	96	2.14	......	122
....	1	1	.....	4	2	1,350	......	....	240	......	....	1,590	......	96	6.49	......	123
....	...	1	.....	3	2	720	......	....	178	......	....	898	......	O.H.	4.62	......	124
....	1	1	.....	4	2	1,200	......	....	194	......	6	1,400	......	144	5.80	......	125
1	3	1	.....	6	1	....	......	....	320	......	150	470	......	O.H.	.48	......	126
2	1	1	.....	6	2	225	......	....	273	......	....	498	......	144	.72	......	127
2	2	1	1	7	2	....	......	....	348	240	8	596	......	O.H.	.68	......	128
....	1	1	.....	4	2	469	......	....	155	......	48	672	......	162	2.49	......	129
....	1	1	.....	4	2	960	......	....	176	......	....	1,136	......	132	4.62	......	130
....	...	1	1	3	3	....	40	....	165	192	....	397	......	O.H.	1.49	......	131
2	1	1	.....	6	2	....	100	....	93	......	....	193	......	84	.32	......	132
1	1	1	.....	5	3	200	45	....	112	......	....	357	......	O.H.	.94	......	133
2	2	1	1	8	3	750	......	....	275	492	192	1,709	284	O.H.	3.45	......	134
1	2	2	.....	6	2	....	156	....	145	......	....	301	......	O.H.	.50	......	135
....	1	1	1	5	3	1,575	......	....	131	225	....	1,931	......	192	6.92	......	136
....	...	1	.....	2	1	....	......	....	200	......	15	215	......	O.H.	.14	......	137
....	1	1	1	5	3	1,313	......	....	303	353	18	1,987	......	108	6.48	......	138
2	...	1	.....	5	2	860	......	....	255	......	39	1,154	......	O.H.	3.46	......	139
1	1	1	5	10	6	117	......	....	50	1,328	....	1,495	......	O.H.	2.78	......	140
....	...	1	.....	3	2	360	......	....	176	......	....	536	......	O.H.	2.31	......	141
....	...	1	1	4	2	....	78	....	93	......	10	181	......	72	.42	......	142
....	...	1	4	6	5	....	......	....	12	1,790	....	1,802	500	O.H.	5.74	......	143
4	2	1	3	12	5	665	......	....	235	1,260	90	2,250	810	O.H.	3.23	......	144
3	1	1	3	10	4	....	......	....	190	1,305	32	1,527	343	84	2.57	......	145
1	...	1	2	6	3	250	......	....	125	437	25	837	137	60	2.28	......	146
....	1	1	4	7	5	....	......	....	93	651	5	749	191	O.H.	1.80	......	147

TABLE XXVII.—CHILDREN UNDER 16 YEARS OF AGE AT WORK: AGE, DITION OF THE CHILD AND THE FAMILY, IN

OHIO—Concluded.

Family number.	The father.		The child.								Membership of family.	
											Occupation or condition of—	
	Race and nativity.	Yrs. in U. S.	Sex.	Age.	Occupation or industry.	Days worked past year.	Earnings past year.	Mos. since beginning work.	Can read and write.	Mos. school attendance.	Father.	Mother.
148	German, F	36	M.	15	Snap-up	250	$280	30	Yes.	50	Molder's heper.	Home
149	German, F	40	M.	15	Snap-up	250	187	12	Yes.	60	Miner	Home
150	German, F	17	M.	15	Carry-in	250	218	17	Yes.	60	Laborer	Home
151	German, F	16	M.	15	Carry-in	250	218	17	Yes.	54	Laborer	Home
152	German, F	28	M.	15	Carry-in	60	45	3	Yes.	60	Incapac	Home
153	German, F	20	M.	15	Mold boy	115	60	9	Yes.	60	Keeps store	Home
154	German, F	27	M.	15	Snap-up	250	218	17	Yes.	65	Idle	Home
155	Irish, F	36	M.	15	Stick-up	230	230	17	Yes.	55	Incapac	Dead
156	Irish, F	24	M.	15	Snap-up	168	146	7	Yes.	54	Leersman	Home
157	Irish, F	40	M.	15	Snap-up	175	131	9	Yes.	65	Incapac	Dead
158	Italian, F	1	M.	15	Carry-in	234	280	9	No.	48	Laborer	Away
159	Polish, F	17	M.	15	Snap-up	125	93	5	Yes.	60	Laborer	Home
160	English, F	27	M.	15	Snap-up	300	210	14	Yes.	60	Dead	Home
161	English, F	25	M.	15	Machine boy	264	239	18	Yes.	80	Laborer	Home
162	Slav, F	5	M.	15	Carry-in	250	250	70	No.	48	Blower	Home
163	Welsh, F	20	M.	15	Mold boy	88	99	8	Yes.	77	Roller	Home
164	Welsh, F	13	M.	15	Carry-in	52	60	2	Yes.	72	Heater	Home
165	American		F.	15	Sorter	130	100	5	Yes.	70	Laborer	Home
166	American		F.	15	Selector	52	40	2	Yes.	70	Laborer	Home
167	American		F.	15	Grinder	260	225	12	Yes.	38	Cook	Work
168	German, N		F.	15	Grinder	310	310	18	Yes.	70	Plumber	Home
169	German, N		F.	15	Wiper	120	90	5	Yes.	68	Plasterer	Home
170	Irish, N		F.	15	Wrapper	104	77	4	Yes.	90	Nut maker, iron.	Home
171	Bohem., F	25	F.	15	Grinder	144	99	6	Yes.	72	Laborer	Home
172	English, F	18	F.	15	Selector	130	85	5	Yes.	45	Car inspector.	Home
173	German, F	25	F.	15	Sorter	88	66	4	Yes.	75	Divorced	Work
174	German, F	24	F.	15	Wiper	250	250	18	Yes.	55	Brewer	Home
175	German, F	21	F.	15	Wiper	208	123	10	Yes.	80	Dead	Home
176	Polish, F	31	F.	15	Wiper	302	300	36	Yes.	50	Laborer	Home
177	Slovak, F	1	F.	15	Sorter	304	229	12	No.	40	Mixer	Home
178	German, F	20	M.	14	Snap-up	250	187	21	Yes.	50	Dead	Work

INDIANA.

Family number.	Race and nativity.	Yrs. in U. S.	Sex.	Age.	Occupation or industry.	Days worked past year.	Earnings past year.	Mos. since beginning work.	Can read and write.	Mos. school attendance.	Father.	Mother.
1	Amer., col		M.	14	Snap-up	90	$83	4	Yes.	40	Dead	Work
2	Amer., col		M.	14	Snap-up	77	77	5	Yes.	30	Gas maker.	Home
3	Amer., col		M.	14	Carry-in	23	23	1	Yes.	30	Farmer	Home
4	Amer., col		M.	14	Snap-up	198	238	12	Yes.	50	Coachman	Home
5	American		M.	14	Carry-in	127	127	5	Yes.	60	Dead	Work
6	American		M.	14	Carry-in	172	192	8	Yes.	60	Dead	Work
7	American		M.	14	Shop boy	132	180	6	Yes.	42	Dead	Work
8	American		M.	14	Shop boy	40	58	2	Yes.	54	Dead	Home
9	American		M.	14	Snap-up	12	16	1	Yes.	54	Leersman	Home
10	American		M.	14	Snap-up	77	96	3	Yes.	50	Machinist	Home
11	American		M.	14	Carry-in.	104	104	5	Yes.	48	Laborer	Home
12	American		M.	14	Carry-in	88	88	4	Yes.	80	Fireman	Home
13	American		M.	14	Carry-in	104	104	4	Yes.	54	Carpenter	Home
14	American		M.	14	Carry-in	150	188	4	Yes.	48	Teamster	Home
15	American		M.	14	Spare boy	78	122	3	Yes.	56	Laborer	Home
16	American		M.	14	Carry-in	130	130	5	Yes.	54	Laborer	Home
17	American		M.	14	Snap-up	120	120	7	Yes.	63	Blacksmith	Home
18	American		M.	14	Carry-in	120	120	5	Yes.	56	Iron molder	Home
19	American		M.	14	Carry-in	5	5	1	Yes.	(c)	Gatherer	Home
20	American		M.	14	Carry-in	18	16	1	Yes.	60	Laborer	Home
21	American		M.	14	Carry-in	44	36	2	Yes.	80	Laborer	Home
22	American		M.	14	Carry-in	55	50	11	Yes.	70	Section hand.	Home

[a] Including 1 other member. [b] Including 2 other members. [c] Estimated value of free rent.

OCCUPATION, AND EDUCATION OF THE CHILD, AND ECONOMIC CONDETAIL, FOR EACH STATE—Continued.

OHIO—Concluded.

Membership of family.						Income of family past year.						Total earnings and income past year.	Am't retained by children 16 years and over.	Rent past year.	Per capita weekly income of family less earnings of children.		Family number.
Children of ages—				Total.	Total wage earners.	Earnings of—					Other.						
								Children—									
Under 10.	10 to 13.	14 and 15.	16 and over.			Father.	Mother.	Under 14.	14 and 15.	16 and over.					Under 16.	Under 14.	
3	1	1	1	8	3	$562	...	...	$280	$281	$15	$1,138	...	O.H.	$2.06	...	148
...	2	1	2	7	2	384	...	...	187	...	10	581	...	O.H.	1.08	...	149
2	2	1	...	7	2	300	...	...	218	...	...	518	...	O.H.	.82	...	150
1	1	2	2	8	4	150	...	...	218	286	50	704	$226	O.H.	1.17	...	151
...	1	1	2	6	2	...	...	...	45	228	200	473	...	O.H.	1.37	...	152
...	1	1	2	6	4	365	...	...	60	710	10	1,145	...	O.H.	3.48	...	153
1	1	2	6	12	2	...	...	...	218	300	20	538	...	O.H.	.51	...	154
...	1	1	4	7	4	...	...	...	230	957	15	1,202	...	$84	2.67	...	155
...	...	2	1	5	3	400	...	...	146	118	...	664	...	72	1.99	...	156
...	2	1	4	8	3	...	...	...	131	675	10	816	363	O.H.	1.65	...	157
...	...	1	1	[a] 4	3	264	...	...	280	525	...	1,069	...	120	3.79	...	158
4	2	1	2	11	4	45	...	...	93	474	5	617	...	O.H.	.92	...	159
...	...	1	3	5	4	...	...	...	210	622	...	832	86	144	2.39	...	160
3	1	1	1	8	3	170	...	...	239	328	30	767	...	O.H.	1.27	...	161
2	...	1	...	5	2	1,050	...	...	250	...	120	1,420	...	O.H.	4.50	...	162
1	...	1	...	4	2	1,188	...	...	99	...	...	1,287	...	108	5.71	...	163
1	...	1	...	4	2	1,050	...	...	60	...	...	1,110	...	108	5.05	...	164
...	...	1	1	4	3	518	...	...	100	268	8	894	226	120	3.82	...	165
3	2	1	2	10	3	396	...	...	40	303	5	744	...	O.H.	1.35	...	166
2	2	1	...	7	3	260	$78	...	225	...	...	563	...	108	.93	...	167
1	2	1	2	8	4	543	...	...	310	620	...	1,473	273	168	2.80	...	168
...	...	1	1	4	3	900	...	...	90	140	4	1,134	...	O.H.	5.02	...	169
1	1	1	1	6	3	537	...	...	77	150	...	764	75	120	2.20	...	170
2	1	1	2	8	4	291	...	...	99	774	...	1,164	...	114	2.56	...	171
3	...	1	...	[a] 7	2	620	...	...	85	...	...	705	...	O.H.	1.70	...	172
2	...	1	2	[b] 8	4	...	125	...	66	512	6	709	137	144	1.55	...	173
3	...	2	2	9	4	672	...	...	250	720	36	1,678	...	O.H.	3.05	...	174
...	...	1	1	3	2	...	...	...	123	332	25	480	132	O.H.	2.29	...	175
...	...	1	5	8	7	510	...	...	300	1,283	...	2,093	913	144	4.31	...	176
...	...	1	...	3	2	535	...	...	229	...	...	764	...	72	3.43	...	177
...	3	1	2	7	4	...	120	...	187	585	5	897	240	O.H.	1.95	...	178

INDIANA.

Under 10.	10 to 13.	14 and 15.	16 and over.	Total.	Total wage earners.	Father.	Mother.	Children under 14.	Children 14 and 15.	Children 16 and over.	Other.	Total earnings and income past year.	Am't retained by children 16 years and over.	Rent past year.	Per capita under 16.	Per capita under 14.	Family number.
...	...	1	...	2	2	...	$260	...	$83	...	...	$343	...	[c] $12	$2.50	...	1
3	2	1	...	8	2	$420	...	...	77	...	...	497	...	96	1.01	...	2
2	2	1	1	7	1	500	...	...	23	...	$2	525	...	72	1.38	...	3
1	1	1	...	5	2	520	...	...	238	...	...	758	...	132	2.00	...	4
...	...	1	1	3	3	...	60	...	127	$506	...	693	...	60	3.63	...	5
1	1	1	1	5	3	...	200	...	192	307	...	699	...	60	1.95	...	6
...	1	1	...	3	2	...	104	...	180	...	5	289	...	60	.70	...	7
1	...	1	1	4	1	...	...	...	58	...	306	364	...	O.H.	1.47	...	8
2	2	1	2	9	4	300	...	...	16	552	40	908	...	144	1.91	...	9
2	1	1	...	6	2	614	...	...	96	...	...	710	...	120	1.97	...	10
3	1	1	...	7	2	375	...	...	104	...	20	499	...	108	1.09	...	11
3	...	1	1	7	3	900	...	...	88	220	...	1,208	$40	O.H.	3.08	...	12
1	...	1	2	6	4	552	...	...	104	585	35	1,276	329	162	3.76	...	13
5	1	1	...	9	2	270	...	...	188	...	...	458	...	120	.58	...	14
...	...	1	2	5	4	187	...	...	122	638	[d]1,005	1,952	...	O.H.	7.04	...	15
...	2	1	2	7	4	364	...	...	130	507	62	1,063	...	120	2.56	...	16
4	1	1	...	8	2	725	...	...	120	...	45	890	...	180	1.85	...	17
2	2	1	...	7	2	480	...	...	120	...	...	600	...	120	1.32	...	18
3	2	1	...	8	2	805	...	...	5	...	78	888	...	102	2.12	...	19
...	...	1	2	5	4	450	...	...	16	627	...	1,093	319	96	4.14	...	20
1	1	1	2	7	4	234	...	...	36	280	...	550	150	96	1.41	...	21
1	2	1	...	6	2	450	...	...	50	...	50	550	...	84	1.60	...	22

[d] Including $1,000 life insurance received.

[e] Still in school.

TABLE XXVII.—CHILDREN UNDER 16 YEARS OF AGE AT WORK: AGE, DITION OF THE CHILD AND THE FAMILY, IN

INDIANA—Continued.

Family number.	The father.		The child.									Membership of family.	
												Occupation or condition of—	
	Race and nativity.	Yrs. in U. S.	Sex.	Age.	Occupation or industry.	Days worked past year.	Earnings past year.	Mos. since beginning work.	Can read and write.	Mos. school attendance.	Father.	Mother.
23	American		M.	14	Carry-in	66	$53	3	Yes.	50	Laborer	Home
24	American		M.	14	Carry-in	44	40	2	Yes.	50	Idle	Home
25	American		M.	14	Carry-in	130	130	8	Yes.	49	Laborer	Home
26	American		M.	14	Hub maker, wheels.	99	124	4	Yes.	60	Laborer	Home
27	American		M.	14	Carry-in	192	192	8	Yes.	56	Divorced	Home
28	English, N		M.	14	Snap-up	112	112	5	Yes.	63	Laborer	Home
29	German, N		M.	14	Carry-in	97	97	7	Yes.	54	Wood worker.	Home
30	Irish, N		M.	14	Carry-in	18	18	1	Yes.	54	Blacksmith	Home
31	Dutch, F	5	M.	14	Snap-up	88	88	4	Yes.	70	Laborer	Home
32	German, F	20	M.	14	Carry-in	110	110	5	Yes.	70	Cutter	Home
33	German, F	27	M.	14	Snap-up	44	44	7	Yes.	56	Laborer	Home
34	Irish, F	30	M.	14	Take-out	66	60	12	Yes.	70	Idle	Home
35	Scand., F	28	M.	14	Snap-up	96	96	4	Yes.	42	Bricklayer	Home
36	Scand., F	15	M.	14	Snap-up	130	195	5	Yes.	68	Blower	Home
37	English, F	24	M.	14	Carry-in	110	110	4	Yes.	60	Carry-in	Home
38	American		F.	14	Chipper	130	80	5	Yes.	70	Teamster	Home
39	American		F.	14	Sorter	120	120	5	Yes.	56	Divorced	Work
40	Amer., col		M.	14	Carry-in	11	11	1	Yes.	63	Teamster	Work
			M.	15	Snap-up	240	240	21	Yes.	63		
41	Irish, F	(a)	M.	14	Snap-up	120	150	5	Yes.	56	Dead	Work
			M.	15	Snap-up	230	287	24	Yes.	49		
42	American		M.	14	Snap-up	66	83	3	Yes.	50	Collector	Home
			F.	15	Sorter	48	48	2	Yes.	62		
43	American		M.	14	Snap-up	143	215	12	Yes.	40	Leersman	Home
			M.	15	Stick-up	166	175	12	Yes.	38		
			M.	15	Shop boy	166	184	12	Yes.	35		
44	Amer., col		M.	15	Carry-in	77	101	12	Yes.	40	Laborer	Work
45	Amer., col		M.	15	Carry-in	88	88	4	Yes.	50	Teamster	Work
46	Amer., col		M.	15	Snap-up	235	275	15	Yes.	56	Laborer	Dead
47	Amer., col		M.	15	Snap-up	280	268	12	Yes.	63	Laborer	Home
48	Amer., col		M.	15	Snap-up	126	126	9	Yes.	48	Laborer	Home
49	American		M.	15	Snap-up	180	270	12	Yes.	56	Laborer	Work
50	American		M.	15	Snap-up	220	220	14	Yes.	50	Laborer	Work
51	American		M.	15	Mold boy	207	233	18	Yes.	64	Dead	Work
52	American		M.	15	Take-out	66	62	24	Yes.	70	Laborer	Home
53	American		M.	15	Take-out	44	40	2	Yes.	40	Deserter	Home
54	American		M.	15	Carry-in	132	106	12	Yes.	60	Meat cutter	Home
55	American		M.	15	Carry-in	38	33	12	Yes.	60	Iron worker	Home
56	American		M.	15	Take-out	66	65	11	Yes.	60	Carpenter	Home
57	American		M.	15	Take-out	72	59	24	Yes.	40	Timekeeper	Home
58	American		M.	15	Carry-in	88	77	6	Yes.	70	Tinner	Home
59	American		M.	15	Take-out	66	59	36	Yes.	50	Laborer	Home
60	American		M.	15	Carry-in	44	36	2	Yes.	90	Iron worker	Home
61	American		M.	15	Take-out	44	40	2	Yes.	50	Laborer	Home
62	American		M.	15	Carry-in	288	180	12	Yes.	63	Gas fitter	Home
63	American		M.	15	Snap-up	220	220	21	Yes.	63	Carpenter	Home
64	American		M.	15	Take-out	104	130	4	Yes.	60	Laborer	Home
65	American		M.	15	Carry-in	234	234	12	Yes.	30	Incapac	Home
66	American		M.	15	Take-out	234	213	12	Yes.	48	Letter carrier.	Home
67	American		M.	15	Snap-up	120	120	5	Yes.	72	Gas mach. opr.	Home
68	American		M.	15	Snap-up	102	80	36	Yes.	66	Incapac	Home
69	American		M.	15	Snap-up	300	288	36	Yes.	54	Expressman	Home
70	American		M.	15	Shop boy	170	210	12	Yes.	49	Carpenter	Home
71	American		M.	15	Shop boy	252	360	12	Yes.	49	Upholsterer	Home
72	American		M.	15	Clean-off	176	231	18	Yes.	56	Plasterer	Home
73	American		M.	15	Mold boy	150	203	10	Yes.	42	Laborer	Home
74	American		M.	15	Carry-in	162	209	12	Yes.	63	Ice-cream maker.	Home

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[a] Not reported.

[b] Including $800 life insurance received.

OCCUPATION, AND EDUCATION OF THE CHILD, AND ECONOMIC CONDETAIL, FOR EACH STATE—Continued.

INDIANA—Continued.

Membership of family.						Income of family past year.						Total earnings and income past year.	Am't retained by children 16 years and over.	Rent past year.	Per capita weekly income of family less earnings of children.		Family number.
Children of ages—				Total.	Total wage earners.	Earnings of—					Other.						
								Children—									
Under 10.	10 to 13.	14 and 15.	16 and over.			Father.	Mother.	Under 14.	14 and 15.	16 and over.					Under 16.	Under 14.	
1	...	1	.....	4	2	$350	......	....	$53	......	....	$403	......	O.H.	$1.68	......	23
1	1	1	1	6	2	....	......	....	40	$109	....	149	......	$84	.35	......	24
3	1	1	1	8	3	322	......	....	130	156	$6	614	......	60	1.16	......	25
....	...	1	3	6	5	420	......	....	124	398	....	942	$187	O.H.	2.62	......	26
3	1	1	1	7	2	....	......	....	192	230	7	429	......	48	.65	......	27
3	1	1	.....	7	2	375	......	....	112	......	....	487	......	132	1.03	......	28
1	2	1	1	7	3	750	......	....	97	416	12	1,275	......	144	3.24	......	29
1	...	1	.....	4	2	675	......	....	18	......	10	703	......	180	3.29	......	30
2	2	1	1	8	3	459	......	....	88	459	....	1,006	199	120	2.21	......	31
....	2	2	.....	6	2	400	......	....	110	......	86	596	......	120	1.56	......	32
1	1	1	2	7	4	255	......	....	44	468	65	832	132	O.H.	2.16	......	33
....	2	1	4	9	5	....	......	....	60	1,530	....	1,590	750	O.H.	3.27	......	34
....	...	1	2	5	3	1,000	......	....	96	2,250	190	3,536	1,990	O.H.	13.23	......	35
3	3	1	1	10	2	2,082	......	....	195	......	79	2,356	......	O.H.	4.16	......	36
....	1	1	2	6	4	269	......	....	110	390	277	1,046	......	O.H.	3.00	......	37
3	1	1	.....	7	2	490	......	....	80	......	6	576	......	108	1.36	......	38
....	1	1	1	4	2	....	$524	....	120	......	180	824	......	180	3.38	......	39
6	2	2	2	14	6	720	104	....	251	404	369	1,848	134	O.H.	2.19	......	40
....	...	2	.....	3	3	....	144	....	437	......	27	608	......	84	1.10	......	41
1	1	2	.....	6	3	384	......	....	131	......	....	515	......	96	1.23	......	42
3	1	3	1	10	5	224	......	....	574	170	48	1,016	......	120	.85	......	43
3	2	1	.....	8	3	528	12	....	101	......	....	641	......	72	1.30	......	44
3	1	1	.....	7	3	461	52	....	88	......	70	671	......	96	1.60	......	45
....	...	1	2	4	3	513	......	....	275	313	....	1,101	169	144	3.97	......	46
....	1	1	3	7	5	255	......	....	268	626	12	1,161	......	72	2.45	......	47
....	...	1	.....	3	2	510	......	....	126	......	....	636	......	96	3.27	......	48
....	...	1	1	4	4	300	62	....	270	245	12	889	95	132	2.98	......	49
....	...	1	.....	3	3	450	52	....	220	......	....	722	......	120	3.22	......	50
....	1	1	.....	3	2	....	72	....	233	......	b 870	1,175	......	84	6.04	......	51
1	1	1	2	7	4	461	......	....	62	546	....	1,069	208	96	2.77	......	52
1	...	1	1	4	2	....	......	....	40	158	22	220	......	O.H.	.87	......	53
....	...	2	.....	4	2	572	......	....	106	......	....	678	......	O.H.	2.75	......	54
1	2	1	1	7	3	316	......	....	33	104	....	453	......	O.H.	1.15	......	55
1	1	1	4	9	6	180	......	....	65	2,317	....	2,562	1,767	O.H.	5.34	......	56
2	...	2	1	7	3	375	......	....	59	225	....	659	100	O.H.	1.65	......	57
1	1	1	.....	5	2	647	......	....	77	......	....	724	......	72	2.49	......	58
2	1	1	.....	6	2	211	......	....	59	......	56	326	......	96	.86	......	59
1	2	1	.....	6	2	195	......	....	36	......	....	231	......	O.H.	.63	......	60
1	1	1	.....	5	2	345	......	....	40	......	5	390	......	48	1.35	......	61
3	2	1	.....	8	2	600	......	....	180	......	12	792	......	84	1.47	......	62
1	2	1	3	9	5	672	......	....	220	750	4	1,646	......	168	3.05	......	63
1	1	1	1	6	2	600	......	....	130	......	71	801	......	O.H.	2.15	......	64
....	...	1	1	4	2	....	......	....	234	78	337	649	......	96	2.00	......	65
1	1	1	.....	5	2	900	......	....	213	......	....	1,113	......	O.H.	3.46	......	66
1	1	1	.....	5	2	792	......	....	120	......	....	912	......	120	3.05	......	67
....	...	1	3	6	4	....	......	....	80	1,340	175	1,595	774	84	4.86	......	68
4	1	1	.....	8	2	620	......	....	288	......	30	938	......	O.H.	1.56	......	69
1	1	1	.....	5	2	435	......	....	210	......	7	652	......	60	1.70	......	70
4	2	1	.....	9	2	300	......	....	360	......	172	832	......	c 72	1.01	......	71
3	1	1	.....	7	2	416	......	....	231	......	36	683	......	144	1.24	......	72
2	1	1	2	8	4	450	......	....	203	474	....	1,127	210	132	2.22	......	73
2	1	1	.....	6	2	728	......	....	209	......	8	945	......	108	2.36	......	74

c Estimated value of free rent.

TABLE XXVII.—CHILDREN UNDER 16 YEARS OF AGE AT WORK: AGE, DITION OF THE CHILD AND THE FAMILY, IN

INDIANA—Concluded.

Family number.	The father.		The child.								Membership of family.	
											Occupation or condition of—	
	Race and nativity.	Yrs. in U. S.	Sex.	Age.	Occupation or industry.	Days worked past year.	Earnings past year.	Mos. since beginning work.	Can read and write.	Mos. school attendance.	Father.	Mother.
75	American		M.	15	Carry-in	159	$215	18	Yes.	63	Laborer	Home
76	American		M.	15	Snap-up	174	174	7	Yes.	56	Laborer	Home
77	American		M.	15	Snap-up	187	187	12	Yes.	50	Laborer	Home
78	American		M.	15	Snap-up	210	261	12	Yes.	60	Clerk	Dead
79	American		M.	15	Shop boy	218	327	21	Yes.	56	Miner	Dead
80	American		M.	15	Mold boy	200	300	21	Yes.	63	Laborer	Home
81	American		M.	15	Mold boy	225	338	18	Yes.	54	Laborer	Home
82	American		M.	15	Carry-in	224	224	11	Yes.	50	Dead	Home
83	American		M.	15	Snap-up	220	220	14	Yes.	60	Dead	Home
84	American		M.	15	Snap-up	88	88	4	Yes.	70	Laborer	Home
85	American		M.	15	Snap-up	220	322	21	Yes.	50	Fireman	Home
86	American		M.	15	Snap-up	220	220	12	Yes.	50	Dead	Home
87	American		M.	15	Snap-up	120	120	5	Yes.	63	Salesman	Home
88	American		M.	15	Snap-up	221	221	12	Yes.	56	Carpenter	Home
89	American		M.	15	Carry-in	230	288	12	Yes.	50	Laborer	Home
90	American		M.	15	Take-out	210	263	12	Yes.	70	Laborer	Home
91	American		M.	15	Carry-in	260	325	30	Yes.	49	Deserter	Home
92	American		M.	15	Take-out	300	349	16	Yes.	56	Laborer	Home
93	American		M.	15	Snap-up	307	307	16	Yes.	48	Foreman car shops.	Home
94	Dutch, N		M.	15	Snap-up	220	220	10	Yes.	60	Laborer	Home
95	English, N		M.	15	Carry-in	220	220	15	Yes.	56	Carpenter	Home
96	German, N		M.	15	Snap-up	126	126	7	Yes.	63	Shipping clerk.	Home
97	German, N		M.	15	Clean-off	150	203	12	Yes.	63	Harness maker.	Home
98	German, N		M.	15	Snap-up	60	60	3	Yes.	63	Blower	Home
99	German, F	20	M.	15	Shop boy	245	368	14	Yes.	70	Dead	Home
100	Scand., F	16	M.	15	Take-out	200	200	12	Yes.	48	Blower	Home
101	Scand., F	10	M.	15	Take-out	200	250	12	Yes.	56	Blower	Home
102	English, F	28	M.	15	Snap-up	118	118	7	Yes.	56	Foreman	Home
103	American		F.	15	Capper	108	75	12	Yes.	60	Deserter	Home
104	American		F.	15	Capper	138	81	12	Yes.	61	Sorter	Home
105	American		F.	15	Wrapper	48	36	2	Yes.	60	Presser	Home
106	American		F.	15	Box maker	18	14	1	Yes.	50	Laborer	Work
107	American		F.	15	Wrapper	96	72	4	Yes.	70	Laborer	Work
108	Irish, F	25	F.	15	Sorter	48	33	2	Yes.	45	Dead	Home
109	Welsh, F	25	F.	15	Carton maker.	230	175	12	Yes.	63	Dead	Home

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1	American		M.	14	Mold boy	150	$112	24	Yes.	90	Dead	Home
2	American		M.	14	Snap-up	180	135	12	Yes.	70	Painter	Home
3	American		M.	14	Machine boy	230	230	9	Yes.	80	Foreman	Home
4	American		M.	14	Snap-up	192	144	8	Yes.	72	Box maker	Home
5	American		M.	14	Snap-up	240	192	8	Yes.	60	Laborer	Home
6	American		M.	14	Stick-up	246	185	12	Yes.	49	Planer	Home
7	American		M.	14	Stick-up	240	170	12	Yes.	80	Barber	Home
8	American		M.	14	Snap-up	120	90	12	Yes.	55	Laborer	Dead
9	American		M.	14	Stick-up	230	173	12	Yes.	62	Smoker, meats.	Home
10	American		M.	14	Snap-up	243	183	12	Yes.	40	Carpenter	Home
11	American		M.	14	Stick-up	246	185	12	Yes.	56	Shearer	Home
12	American		M.	14	Snap-up	130	98	12	Yes.	80	Miner	Home
13	American		M.	14	Snap-up	247	185	12	Yes.	70	Engineer	Home
14	American		M.	14	Snap-up	239	215	12	Yes.	40	Bricklayer	Home
15	American		M.	14	Throw-out	192	134	8	Yes.	80	Teamster	Home

[a] Including 2 other members.

OCCUPATION, AND EDUCATION OF THE CHILD, AND ECONOMIC CON-
DETAIL, FOR EACH STATE—Continued.

INDIANA—Concluded.

Membership of family.						Income of family past year.						Total earnings and income past year.	Am't retained by children 16 years and over.	Rent past year.	Per capita weekly income of family less earnings of children.		Family number.
Children of ages—				Total.	Total wage earners.	Earnings of—					Other.						
Under 10.	10 to 13.	14 and 15.	16 and over.			Father.	Mother.	Children—							Under 16.	Under 14.	
								Under 14.	14 and 15.	16 and over.							
1	...	1	...	4	2	$461	...	...	$215	...	...	$676	...	$138	$2.22	...	75
...	2	1	3	8	4	375	...	...	174	$525	$121	1,195	...	132	2.45	...	76
1	1	1	1	6	3	432	...	...	187	255	68	942	...	O.H.	2.42	...	77
...	...	1	4	6	5	510	...	...	261	830	...	1,601	...	180	4.29	...	78
...	...	1	3	5	4	720	...	...	327	627	...	1,674	$277	120	5.18	...	79
1	...	1	1	5	3	450	...	...	300	300	20	1,070	144	132	2.96	...	80
...	2	1	...	5	2	390	...	...	338	...	...	728	...	96	1.50	...	81
...	1	1	3	6	4	...	...	...	224	831	306	1,361	...	180	3.64	...	82
...	1	1	2	5	3	...	...	...	220	824	...	1,044	408	O.H.	3.17	...	83
2	1	1	1	7	3	360	...	...	88	459	...	907	199	O.H.	2.25	...	84
2	...	1	1	6	3	660	...	...	322	322	120	1,424	...	O.H.	3.53	...	85
...	1	1	4	7	4	...	...	...	220	1,233	...	1,453	...	144	3.39	...	86
...	1	2	1	6	2	780	...	...	120	...	50	950	...	O.H.	2.66	...	87
3	1	1	1	8	3	600	...	...	221	210	28	1,059	104	O.H.	2.01	...	88
...	...	1	1	4	3	150	...	...	288	364	55	857	...	O.H.	2.74	...	89
2	2	1	...	7	2	338	...	...	263	...	4	605	...	144	.94	...	90
...	...	2	...	[a]5	1	...	...	...	325	...	604	929	...	O.H.	2.32	...	91
...	1	1	2	6	4	375	...	...	349	605	...	1,329	392	132	3.14	...	92
2	1	1	2	8	4	500	...	...	307	525	15	1,347	225	O.H.	2.50	...	93
2	1	1	...	6	2	461	...	...	220	...	60	741	...	120	1.67	...	94
...	1	1	...	4	2	500	...	...	220	...	22	742	...	O.H.	2.51	...	95
...	...	1	1	4	3	624	...	...	126	416	15	1,181	...	O.H.	5.07	...	96
...	...	1	...	3	2	946	...	...	203	...	...	1,149	...	O.H.	6.06	...	97
2	1	1	...	6	2	2,500	...	...	60	...	...	2,560	...	168	8.01	...	98
1	2	1	1	6	2	...	...	...	368	315	6	689	...	120	1.03	...	99
1	2	1	3	9	5	2,170	...	...	200	1,258	...	3,628	384	180	7.32	...	100
2	2	1	...	7	2	1,100	...	...	250	...	29	1,379	...	O.H.	3.10	...	101
2	2	1	...	7	2	903	...	...	118	...	23	1,044	...	132	2.54	...	102
...	1	1	1	4	2	...	...	...	75	90	...	165	...	60	.43	...	103
3	...	1	...	7	2	412	...	...	81	...	36	529	...	O.H.	1.23	...	104
...	...	1	...	3	2	600	...	...	36	...	...	636	...	120	3.85	...	105
2	2	1	...	7	3	450	$125	...	14	...	...	589	...	72	1.58	...	106
2	2	1	...	7	3	434	50	...	72	...	...	556	...	120	1.33	...	107
...	1	1	3	6	4	...	...	...	33	858	...	891	487	96	2.75	...	108
...	2	1	2	6	3	...	...	...	175	475	5	655	...	120	1.54	...	109

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Under 10.	10 to 13.	14 and 15.	16 and over.	Total.	Total wage earners.	Father.	Mother.	Children under 14.	Children 14 and 15.	Children 16 and over.	Other.	Total earnings and income past year.	Am't retained by children 16 years and over.	Rent past year.	Under 16.	Under 14.	Family number.
2	...	1	3	7	4	...	...	...	$112	$2516	...	$2,628	$455	O.H.	$6.91	...	1
...	...	1	...	3	2	$575	...	...	135	...	$3	713	...	O.H.	3.71	...	2
1	...	1	1	5	2	645	...	...	230	...	20	895	...	O.H.	2.56	...	3
2	2	1	...	7	2	566	...	...	144	...	25	735	...	$96	1.62	...	4
1	2	1	1	7	3	450	...	...	192	180	...	822	30	O.H.	1.73	...	5
...	2	1	2	7	4	660	...	...	185	888	10	1,743	...	O.H.	4.28	...	6
...	1	1	3	7	4	612	...	...	170	1,056	55	1,893	...	O.H.	4.73	...	7
...	...	1	1	3	3	173	...	...	90	313	23	599	...	96	3.26	...	8
3	1	1	...	7	2	334	...	...	173	...	27	534	...	96	.99	...	9
4	1	1	1	9	3	325	...	...	183	150	18	676	...	96	1.05	...	10
1	1	1	...	5	2	440	...	...	185	...	28	653	...	O.H.	1.80	...	11
...	...	1	2	5	4	980	...	...	98	1,035	21	2,134	55	O.H.	7.83	...	12
3	1	1	...	7	2	722	...	...	185	...	...	907	...	O.H.	1.98	...	13
4	1	1	...	8	2	960	...	...	215	...	15	1,190	...	O.H.	2.34	...	14
...	1	1	...	4	2	546	...	...	134	...	15	695	...	O.H.	2.70	...	51

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[b] Including 1 other member.

TABLE XXVII.—CHILDREN UNDER 16 YEARS OF AGE AT WORK: AGE, DITION OF THE CHILD AND THE FAMILY, IN

ILLINOIS—Continued.

Family number.	The father.		The child.								Membership of family.	
											Occupation or condition of—	
	Race and nativity.	Yrs. in U. S.	Sex.	Age.	Occupation or industry.	Days worked past year.	Earnings past year.	Mos. since beginning work.	Can read and write.	Mos. school attendance.	Father.	Mother.
16	American		M.	14	Clean-off	144	$101	6	Yes.	80	Barkeeper	Home
17	American		M.	14	Clean-off	96	67	4	Yes.	54	Trunk maker.	Home
18	American		M.	14	Snap-up	216	163	9	Yes.	83	Deserter	Work
19	American		M.	14	Snap-up	240	180	26	Yes.	50	Deserter	Work
20	American		M.	14	Roll capper, iron.	93	93	4	Yes.	56	Dead	Work
21	Amer., col		M.	14	Snap-up	246	197	14	Yes.	75	Dead	Home
22	Amer., col		M.	14	Snap-up	12	9	24	Yes.	40	Laborer	Work
23	Amer., col		M.	14	Snap-up	78	78	18	Yes.	55	Hod carrier	Work
24	English, N		M.	14	Mold boy	150	113	6	Yes.	73	Molder	Home
25	English, N		M.	14	Snap-up	234	175	9	Yes.	80	Miner	Home
26	French, N		M.	14	Carry-in	182	118	12	Yes.	70	Dead	Home
27	German, N		M.	14	Snap-up	182	182	29	Yes.	60	Bottler, soda.	Home
28	German, N		M.	14	Carry-in	234	175	9	Yes.	70	Conductor	Home
29	German, N		M.	14	Carry-in	39	25	2	Yes.	80	Laborer	Home
30	German, N		M.	14	Carry-in	164	106	7	Yes.	70	Engineer	Home
31	German, N		M.	14	Snap-up	220	165	12	Yes.	70	Fireman	Home
32	German, N		M.	14	Mold boy	234	175	9	Yes.	80	Bricklayer.	Home
33	German, N		M.	14	Stick-up	156	117	6	Yes.	70	Policeman	Home
34	German, N		M.	14	Carry-in	130	85	5	Yes.	73	Miner	Home
35	German, N		M.	14	Snap-up	196	147	8	Yes.	42	Miner	Home
36	German, N		M.	14	Mold boy	252	252	24	Yes.	50	Dead	Work
37	German, N		M.	14	Carry-in	182	118	7	Yes.	70	Dead	Work
38	Irish, N		M.	14	Gauger	104	78	4	Yes.	70	Blower	Home
39	English, N		M.	14	Snap-up	258	206	8	Yes.	72	Blower	Home
40	English, F	35	M.	14	Gauger	30	23	11	Yes.	40	Incapac	Home
41	English, F	25	M.	14	Snap-up	260	195	12	Yes.	80	Presser	Home
42	English, F	28	M.	14	Mold boy	72	72	48	Yes.	50	Carry-in	Home
43	English, F	56	M.	14	Carry-in	156	99	12	Yes.	65	Miner	Home
44	English, F	32	M.	14	Carry-in	52	34	24	Yes.	35	Miner	Home
45	English, F	25	M.	14	Clean-off	142	99	6	Yes.	27	Janitor	Home
46	German, F	25	M.	14	Clean-off	242	242	24	Yes.	60	Blower	Home
47	German, F	17	M.	14	Snap-up	170	127	6	Yes.	90	Blacksmith	Home
48	German, F	(b)	M.	14	Snap-up	48	38	2	Yes.	80	Dead	Home
49	German, F	21	M.	14	Stick-up	192	144	8	Yes.	53	Laborer	Home
50	German, F	20	M.	14	Stick-up	150	112	6	Yes.	70	Miner	Home
51	German, F	35	M.	14	Carry-in	18	12	1	Yes.	70	Teamster	Home
52	German, F	26	M.	14	Mold boy	300	228	12	Yes.	70	Miner	Home
53	German, F	28	M.	14	Snap-up	120	84	5	Yes.	44	Laborer	Home
54	German, F	22	M.	14	Snap-up	65	46	3	Yes.	80	Laborer	Home
55	German, F	22	M.	14	Snap-up	96	67	4	Yes.	78	Miner	Home
56	German, F	(b)	M.	14	Clean-off	120	84	5	Yes.	80	Idle	Home
57	German, F	23	M.	14	Snap-up	193	174	8	Yes.	56	Dead	Home
58	German, F	24	M.	14	Clean-off	168	118	7	Yes.	63	Machinist	Home
59	German, F	26	M.	14	Clean-off	190	133	8	Yes.	88	Blower	Home
60	German, F	50	M.	14	Snap-up	150	112	60	No.	27	Carry-in	Work
61	Irish, F	(b)	M.	14	Snap-up	230	172	9	Yes.	50	Dead	Work
62	Magyar, F	6	M.	14	Snap-up	240	180	12	Yes.	86	Cinder man	Home
63	Slav, F	26	M.	14	Clerk clothing.	300	250	12	Yes.	33	Miner	Home
64	Slay, F	28	M.	14	Snap-up	72	65	3	Yes.	42	Miner	Home
65	Slav, F	19	M.	14	Snap-up	96	67	4	Yes.	24	Miner	Home
66	Slav, F	20	M.	14	Snap-up	138	92	6	Yes.	79	Miner	Home
67	Slav, F	20	M.	14	Snap-up	192	173	8	Yes.	52	Barkeeper	Home
68	Slav, F	11	M.	14	Snap-up	182	164	8	Yes.	42	Miner	Home
69	Slav, F	26	M.	14	Snap-up	168	151	7	Yes.	70	Miner	Home
70	Slav, F	28	M.	14	Snap-up	190	133	8	Yes.	80	Miner	Home
71	Slav, F	18	M.	14	Snap-up	120	108	5	Yes.	80	Miner	Home
72	Slav, F	5	M.	14	Snap-up	190	171	8	Yes.	80	Laborer	Home
73	Slav, F	36	M.	14	Snap-up	190	133	8	Yes.	80	Miner	Home
74	Slav, F	20	M.	14	Mold boy	190	134	8	Yes.	80	Miner	Home

[a] Including 1 other member.

OCCUPATION, AND EDUCATION OF THE CHILD AND ECONOMIC CONDETAIL, FOR EACH STATE—Continued.

ILLINOIS—Continued.

Membership of family.						Income of family past year.						Total earnings and income past year.	Am't retained by children 16 years and over.	Rent past year.	Per capita weekly income of family less earnings of children.		Family number.
Children of ages—				Total.	Total wage earners.	Earnings of—					Other.				Under 16.	Under 14.	
Under 10.	10 to 13.	14 and 15.	16 and over.			Father.	Mother.	Children—									
								Under 14.	14 and 15.	16 and over.							
....	...	1	1	4	2	$450	......	....	$101	......	$10	$561	......	$132	$2.21	......	16
....	2	1	1	6	3	500	......	....	67	$180	20	767	$100	O.H.	2.24	......	17
....	...	1	.....	2	2	....	$300	....	163	......	32	495	......	O.H.	3.19	......	18
....	...	1	1	3	3	....	182	....	180	260	97	719	......	114	3.46	......	19
....	1	1	.....	3	2	....	72	....	93	......	10	175	......	96	.53	......	20
....	...	1	2	4	3	....	......	....	197	629	....	826	......	48	3.02	......	21
3	...	1	1	7	4	312	63	....	9	220	....	604	......	48	1.63	......	22
1	2	1	1	7	4	843	456	....	78	260	28	1,665	......	O.H.	4.36	......	23
2	2	1	.....	7	2	884	......	....	113	......	....	997	......	72	2.43	......	24
3	2	1	.....	8	2	438	......	....	175	......	....	613	......	120	1.05	......	25
3	2	1	2	9	3	....	......	....	118	312	6	436	......	O.H.	.68	......	26
....	...	1	1	4	3	620	......	....	182	221	17	1,040	......	144	4.13	......	27
....	...	2	2	6	4	580	......	....	175	513	6	1,274	......	O.H.	3.52	......	28
....	...	1	2	5	3	627	......	....	25	246	12	910	......	O.H.	3.40	......	29
....	...	1	.....	3	2	468	......	....	106	......	112	686	......	O.H.	3.72	......	30
2	1	1	1	7	3	660	......	....	165	258	44	1,127	......	O.H.	2.64	......	31
2	...	1	.....	5	2	661	......	....	175	......	3	839	......	120	2.55	......	32
1	...	1	1	5	2	900	......	....	117	......	3	1,020	......	180	3.47	......	33
2	1	1	.....	6	2	562	......	....	85	......	6	653	......	O.H.	1.82	......	34
....	...	1	3	6	4	430	......	....	147	574	6	1,157	......	144	3.24	......	35
....	...	1	2	4	3	....	78	....	252	288	1	619	......	96	1.76	......	36
3	2	1	.....	a 8	2	....	64	....	118	......	221	403	......	O.H.	.69	......	37
1	2	1	.....	6	2	1,638	......	....	78	......	21	1,737	......	O.H.	5.32	......	38
1	...	1	2	6	4	1,820	......	....	206	262	81	2,369	156	144	6.93	......	39
....	1	1	2	6	3	....	......	....	23	404	4	431	......	120	1.31	......	40
4	2	1	2	11	4	1,170	......	....	195	585	....	1,950	......	O.H.	3.07	......	41
3	1	1	1	8	3	313	......	....	72	308	40	733	......	O.H.	1.59	......	42
....	...	1	1	4	3	322	......	....	99	39	42	502	39	72	1.94	......	43
2	...	1	2	7	4	780	......	....	34	1,404	....	2,218	......	150	6.00	......	44
....	...	1	3	6	4	300	......	....	99	910	....	1,309	......	120	3.88	......	45
2	1	1	1	7	3	784	......	....	242	29	7	1,062	......	132	2.25	......	46
5	1	1	.....	9	2	910	......	....	127	......	45	1,082	......	O.H.	2.04	......	47
....	1	1	3	6	4	....	......	....	38	821	153	1,012	100	O.H.	3.12	......	48
1	2	1	2	8	4	44	......	....	144	444	11	643	......	O.H.	1.20	......	49
4	...	1	1	8	2	507	......	....	112	......	161	780	......	O.H.	1.61	......	50
1	1	1	2	7	4	650	......	....	12	421	20	1,103	......	O.H.	3.00	......	51
1	1	1	.....	5	2	595	......	....	228	......	23	846	......	O.H.	2.38	......	52
....	1	1	2	6	4	228	......	....	84	650	....	962	......	120	2.81	......	53
3	2	1	2	10	3	635	......	....	46	420	18	1,119	......	O.H.	2.06	......	54
4	2	1	1	10	3	476	......	....	67	353	88	984	......	O.H.	1.76	......	55
2	...	1	2	7	2	....	......	....	84	300	35	419	......	O.H.	.92	......	56
....	...	1	2	4	3	....	......	....	174	1,282	50	1,506	......	O.H.	6.40	......	57
4	2	1	.....	9	2	760	......	....	118	......	55	933	......	O.H.	1.74	......	58
....	...	1	.....	3	2	1,000	......	....	133	......	....	1,133	......	O.H.	6.41	......	59
1	...	1	1	5	4	295	173	....	112	260	19	859	......	72	2.87	......	60
....	...	1	5	7	6	....	138	....	172	2,132	57	2,499	780	168	6.39	......	61
1	...	1	.....	4	2	490	......	....	180	......	37	707	......	O.H.	2.53	......	62
6	2	1	3	14	4	453	......	....	250	689	78	1,470	......	O.H.	1.68	......	63
1	...	1	1	5	3	524	......	....	65	433	20	1,042	......	O.H.	3.76	......	64
1	...	1	.....	4	2	524	......	....	67	......	50	641	......	O.H.	2.76	......	65
....	1	1	1	5	3	550	......	....	92	176	67	885	......	O.H.	3.05	......	66
2	2	1	3	10	4	635	......	....	173	705	90	1,603	......	O.H.	2.75	......	67
....	...	1	.....	3	2	437	......	....	164	......	133	734	......	O.H.	3.65	......	68
....	...	1	3	6	5	68	......	....	151	912	28	1,159	......	O.H.	3.23	......	69
....	...	1	.....	3	2	390	......	....	133	......	53	576	......	O.H.	2.84	......	70
3	1	1	1	8	3	430	......	....	108	350	78	966	......	O.H.	2.06	......	71
3	2	1	.....	8	2	367	......	....	171	......	82	620	......	60	1.08	......	72
....	...	1	1	4	3	360	......	....	133	428	65	978	......	O.H.	4.06	......	73
3	1	1	.....	7	2	524	......	....	134	......	60	718	......	O.H.	1.60	......	74

b Not reported.

TABLE XXVII.—CHILDREN UNDER 16 YEARS OF AGE AT WORK: AGE, DITION OF THE CHILD AND THE FAMILY, IN

ILLINOIS—Concluded.

Family number.	The father.		The child.								Membership of family. Occupation or condition of—	
	Race and nativity.	Yrs. in U. S.	Sex.	Age.	Occupation or industry.	Days worked past year.	Earnings past year.	Mos. since beginning work.	Can read and write.	Mos. school attendance.	Father.	Mother.
75	Slav, F	27	M.	14	Snap-up	96	$58	4	Yes.	64	Laborer	Home
76	Slav, F	27	M.	14	Clean-off	190	133	8	Yes.	80	Miner	Home
77	Slav, F	21	M.	14	Clean-off	190	133	8	Yes.	80	Miner	Home
78	Slav, F	26	M.	14	Clean-off	96	67	4	Yes.	80	Clerk	Home
79	Slav, F	20	M.	14	Clean-off	239	167	10	Yes.	80	Miner	Home
80	Slav, F	22	M.	14	Clean-off	145	102	6	Yes.	36	Miner	Home
81	Slav, F	24	M.	14	Clean-off	95	67	4	Yes.	80	Carpenter	Home
82	American		M.	14	Take-out	163	130	7	Yes.	66	Laborer	Home
			M.	15	Mold boy	260	260	48	Yes.	24		
83	Irish, N		M.	14	Snap-up	100	75	48	Yes.	80	Engineer	Home
			M.	15	Mold boy	182	182	23	Yes.	80		
84	English, F	40	M.	14	Snap-up	155	124	6	Yes.	70	Blower	Home
			M.	15	Snap-up	260	195	12	Yes.	90		
85	German, F	18	M.	14	Snap-up	25	18	1	Yes.	80	Blower	Home
			M.	15	Clean-off	240	168	20	Yes.	80		
86	German, F	28	M.	14	Carry-in	78	50	3	Yes.	56	Separated	Home
			M.	15	Take-out	258	193	12	Yes.	56		
87	Welsh, F	47	M.	14	Snap-up	190	171	8	Yes.	64	Miner	Dead
			M.	15	Snap-up	241	217	19	Yes.	56		
88	American		M.	15	Snap-up	246	185	24	Yes.	16	Dead	Work
89	American		M.	15	Stick-up	246	185	24	Yes.	68	Watchman	Home
90	American		M.	15	Stick-up	242	182	24	Yes.	56	Polisher, stone.	Home
91	American		M.	15	Snap-up	248	186	32	Yes.	72	Blower	Home
92	Amer., col		M.	15	Snap-up	242	182	24	Yes.	40	Sweeper	Home
93	German, N		M.	15	Snap-up	234	175	22	Yes.	70	Miner	Home
94	English, F	(*c*)	M.	15	Stick-up	240	180	24	Yes.	60	Inspector, car.	Home
95	English, F	20	M.	15	Stick-up	208	156	18	Yes.	54	Miner	Home
96	German, F	40	M.	15	Take-out	260	195	12	Yes.	80	Dead	Home
97	German, F	29	M.	15	Snap-up	310	221	21	Yes.	80	Miner	Home
98	German, F	30	M.	15	Snap-up	180	135	18	Yes.	70	Farmer	Home
99	German, F	23	M.	15	Snap-up	208	156	20	Yes.	70	Dead	Work
100	Slav, F	28	M.	15	Snap-up	174	122	8	Yes.	80	Laborer	Home
101	Slav, F	20	M.	15	Clerk, feed store.	306	255	24	Yes.	76	Miner	Home
102	Slav, F	23	M.	15	Snap-up	240	216	15	Yes.	80	Miner	Home
103	Slav, F	24	M.	15	Snap-up	120	108	5	Yes.	58	Miner	Home
104	Slav, F	26	M.	15	Snap-up	240	184	12	Yes.	80	Miner	Home
105	Slav, F	28	M.	15	Snap-up	242	218	12	Yes.	32	Miner	Home
106	American		F	15	Chute girl	249	208	24	Yes.	72	Dead	Work
107	German, F	31	F.	15	Carton maker.	235	129	12	Yes.	40	Laborer	Home
108	Slav, F	28	F.	15	Gauger	240	180	20	Yes.	29	Miner	Home

WISCONSIN.

1	German, F	28	M.	14	Take-out	108	$100	5	Yes.	63	Baker	Home
2	German, F	22	M.	14	Take-out	110	96	5	Yes.	63	Blower	Home
3	German, F	16	M.	14	Take-out	144	144	7	Yes.	54	Laborer	Home
4	German, F	17	M.	14	Take-out	96	96	4	Yes.	48	Laborer	Home
5	German, F	20	M.	14	Take-out	96	96	4	Yes.	63	Laborer	Home
6	Polish, F	27	M.	14	Water boy	144	144	6	Yes.	50	Laborer	Work
7	Polish, F	27	M.	14	Take-out	144	144	8	Yes.	48	Laborer	Home
8	Polish, F	30	M.	14	Snap-up	96	96	4	Yes.	56	Blacksmith	Home
9	Polish, F	40	M.	14	Take-out	130	120	6	Yes.	63	Laborer	Home
10	Polish, F	23	M.	14	Spare boy	60	53	3	Yes.	48	Laborer	Home
11	Polish, F	3	M.	14	Snap-up	96	96	4	Yes.	30	Laborer	Home
12	Polish, F	24	M.	14	Take-out	96	96	5	Yes.	56	Idle	Home

[a] Including 1 other member.

[b] Estimated value of free rent.

OCCUPATION, AND EDUCATION OF THE CHILD, AND ECONOMIC CON-DETAIL, FOR EACH STATE—Concluded.

ILLINOIS—Concluded.

Membership of family.						Income of family past year.						Total earnings and income past year.	Am't retained by children 16 years and over.	Rent past year.	Per capita weekly income of family less earnings of children.		Family number.
Children of ages—				To-tal.	Total wage earners.	Earnings of—					Other.						
								Children—									
Under 10.	10 to 13.	14 and 15.	16 and over.			Father.	Mother.	Under 14.	14 and 15.	16 and over.					Under 16.	Under 14.	
1	1	1	1	6	3	$291	......	....	$58	$168	$32	$549	......	O.H.	$1.57	......	75
2	...	1	2	7	4	450	......	....	133	597	72	1,252	......	O.H.	3.07	......	76
2	1	1	2	8	4	433	......	....	133	695	110	1,371	......	O.H.	2.98	......	77
1	1	1	1	6	3	500	......	....	67	175	30	772	......	O.H.	2.26	......	78
1	2	1	......	6	2	455	......	....	167	......	47	669	......	O.H.	1.61	......	79
2	2	1	......	7	2	433	......	....	102	......	50	585	......	O.H.	1.33	......	80
1	1	1	......	5	2	750	......	....	67	......	30	847	......	O.H.	3.00	......	81
....	1	2	1	6	4	566	......	....	390	260	......	1,216	......	$84	2.65	......	82
2	2	2	......	8	3	686	......	....	257	......	32	975	......	96	1.73	......	83
....	1	2	1	6	4	1,133	......	....	319	325	54	1,831	......	120	4.85	......	84
....	3	2	......	7	3	820	......	....	186	......	55	1,061	......	O.H.	2.40	......	85
....	1	2	4	8	6	......	......	....	243	1,118	17	1,378	$234	144	2.73	......	86
1	...	2	1	a 6	4	400	......	....	388	480	12	1,280	......	O.H.	2.86	......	87
3	1	1	......	6	2	......	$125	....	185	......	......	310	......	O.H.	.40	......	88
2	2	1	3	10	5	360	......	....	185	1,448	82	2,075	......	b 72	3.63	......	89
1	...	1	3	7	4	450	......	....	182	530	12	1,174	......	O.H.	2.72	......	90
....	2	1	......	5	2	866	......	....	186	......	6	1,058	......	120	3.35	......	91
4	2	1	1	10	3	168	......	....	182	368	10	728	......	O.H.	1.05	......	92
3	1	2	......	8	2	872	......	....	175	......	183	1,230	......	108	2.54	......	93
2	1	1	1	7	2	876	......	....	180	......	36	1,092	......	O.H.	2.51	......	94
3	...	2	1	8	3	433	......	....	156	34	5	628	34	O.H.	1.13	......	95
....	...	1	5	7	6	......	......	....	195	1,500	31	1,726	953	O.H.	4.21	......	96
1	1	1	1	6	3	1,170	......	....	221	1,040	3	2,434	......	120	7.09	......	97
3	1	2	1	9	3	1,000	......	....	135	26	26	1,187	26	200	2.25	......	98
....	...	1	2	4	4	......	38	....	156	865	102	1,161	571	O.H.	4.83	......	99
4	2	1	2	11	4	240	......	....	122	496	85	943	......	O.H.	1.44	......	100
3	2	1	2	10	4	452	......	....	255	433	65	1,205	......	O.H.	1.83	......	101
2	2	1	3	10	3	455	......	....	216	375	32	1,078	......	O.H.	1.66	......	102
2	2	1	1	8	3	429	......	....	108	1,200	95	1,832	......	O.H.	4.14	......	103
....	...	1	2	5	4	455	......	....	184	744	71	1,454	......	O.H.	4.88	......	104
1	1	1	1	6	3	437	......	....	218	180	75	910	......	O.H.	2.22	......	105
....	...	1	3	5	4	......	128	....	208	406	5	747	106	108	2.07	......	106
3	2	1	2	10	4	480	......	....	129	754	......	1,363	......	156	2.37	......	107
2	2	1	1	8	3	520	......	....	180	524	20	1,244	......	O.H.	2.56	......	108

WISCONSIN.

5	1	1	2	11	3	$635	......	....	$100	$365	$952	$2,052	......	O.H.	$3.41	......	1
....	...	1	1	4	3	756	......	....	96	36	90	978	......	$156	4.24	......	2
2	2	1	2	9	4	900	......	....	144	617	40	1,701	......	84	3.33	......	3
5	2	1	1	11	3	350	......	....	96	8	......	454	......	60	.63	......	4
3	1	1	2	9	4	504	......	....	96	560	......	1,160	......	O.H.	2.27	......	5
1	2	1	3	9	5	480	$600	....	144	350	......	1,574	......	120	3.06	......	6
....	1	1	3	7	3	390	......	....	144	300	60	894	......	O.H.	2.06	......	7
2	2	1	......	7	2	578	......	....	96	......	......	674	......	O.H.	1.59	......	8
1	1	1	3	8	4	420	......	....	120	696	......	1,236	......	O.H.	2.68	......	9
3	1	1	......	7	2	315	......	....	53	......	......	368	......	84	.87	......	10
....	2	1	......	5	2	525	......	....	96	......	......	621	......	O.H.	2.02	......	11
3	1	1	4	11	5	......	......	....	96	1,470	27	1,593	$652	O.H.	2.62	......	12

c Not reported.

TABLE XXVII.—CHILDREN UNDER 16 YEARS OF AGE AT WORK: AGE, DITION OF THE CHILD AND THE FAMILY, IN

WISCONSIN—Concluded.

Family number.	The father.		The child.								Membership of family. Occupation or condition of—	
	Race and nativity.	Yrs. in U. S.	Sex.	Age.	Occupation or industry.	Days worked past year.	Earnings past year.	Mos. since beginning work.	Can read and write.	Mos. school attendance.	Father.	Mother.
13	Polish, F....	20	M.	14	Take-out....	120	$114	5	Yes.	56	Plumber...	Home
14	Polish, F....	30	M.	14	Take-out....	144	144	6	Yes.	63	Laborer....	Home
15	Polish, F....	23	M.	14	Snap-up.....	288	234	12	Yes.	56	Molder.....	Home
16	Polish, F....	28	M.	14	Snap-up.....	72	72	3	Yes.	56	Laborer....	Dead
17	Norwegian, F.	26	M.	14	Snap-up.....	96	96	4	Yes.	63	Laborer....	Home
18	Polish, F....	18	M.	14	Spare boy...	12	12	1	Yes.	63	Laborer....	Home
			M.	15	Boxes	200	170	12	Yes.	63		
19	Polish, F....	18	M.	14	Water boy..	72	72	3	Yes.	63	Laborer....	Home
			F.	15	Clerk, bakery	307	156	24	Yes.	54		
20	Polish, F....	25	M.	14	Carry-in.....	24	24	1	Yes.	56	Laborer....	Home
			F.	15	Helper, candy.	72	36	3	Yes.	72		
21	American...	.....	M.	15	Snap-up.....	252	252	14	Yes.	63	Bender, brass.	Home
22	German, N..	.....	M.	15	Carry-in.....	250	250	18	Yes.	63	Laborer....	Home
23	German, N..	.....	M.	15	Take-out....	300	300	24	Yes.	63	Currier.....	Home
24	German, F..	25	M.	15	Snap-up.....	192	134	8	Yes.	63	Dead......	Home
25	German, F..	25	M.	15	Snap-up.....	252	252	18	Yes.	56	Laborer....	Home
26	German, F..	22	M.	15	Snap-up.....	260	260	12	Yes.	50	Teamster..	Home
27	German, F..	20	M.	15	Take-out....	144	128	6	Yes.	63	Laborer....	Home
28	German, F..	28	M.	15	Clean-off....	298	278	12	Yes.	63	Laborer....	Home
29	German, F..	12	M.	15	Take-out....	250	250	12	Yes.	63	Wine maker	Home
30	German, F..	24	M.	15	Take-out....	250	250	24	Yes.	56	Laborer....	Home
31	German, F..	15	M.	15	Snap-up.....	307	280	12	Yes.	56	Dead......	Work
32	Polish, F....	17	M.	15	Snap-up.....	72	72	3	Yes.	50	Laborer....	Home
33	Polish, F....	27	M.	15	Take-out....	302	294	24	Yes.	60	Laborer....	Home
34	Polish, F....	30	M.	15	Take-out....	307	307	16	Yes.	56	Laborer....	Home
35	Polish, F....	28	M.	15	Take-out....	250	250	24	Yes.	54	Laborer....	Home
36	Polish, F....	26	M.	15	Take-out....	120	120	12	Yes.	56	Laborer....	Home
37	Polish, F....	27	M.	15	Snap-up.....	96	96	4	Yes.	48	Laborer....	Home
38	Polish, F....	30	M.	15	Take-out....	250	250	12	Yes.	56	Laborer....	Home
39	Polish, F....	20	M.	15	Take-out....	254	254	16	Yes.	58	Teamster ..	Home
40	Polish, F....	20	M.	15	Snap-up.....	96	96	4	Yes.	60	Molder.....	Home
41	Polish, F....	26	M.	15	Take-out....	254	254	14	Yes.	54	Laborer....	Home
42	Polish, F....	16	M.	15	Snap-up.....	120	120	16	Yes.	40	Laborer....	Home
43	Polish, F....	20	M.	15	Snap-up.....	336	288	16	Yes.	56	Laborer....	Home

MISSOURI.

Family number.	Race and nativity.	Yrs. in U. S.	Sex.	Age.	Occupation or industry.	Days worked past year.	Earnings past year.	Mos. since beginning work.	Can read and write.	Mos. school attendance.	Father.	Mother.
1	Amer., col..	....	M.	12	Feeder, box factory.	208	$138	8	Yes.	50	Dead......	Work
			M.	14	Stick-up....	208	210	14	Yes.	60		
2	American...	.....	M.	13	Clean-off....	154	154	7	Yes.	60	Deserter...	Home
3	American...	.....	M.	14	Snap-up....	104	113	4	No..	50	Sawyer....	Home
4	American...	.....	M.	14	Gauger.....	156	171	24	Yes.	60	Car builder.	Work
5	American...	.....	M.	14	Snap-up....	260	286	37	Yes.	30	Laborer....	Work
6	Amer., col..	....	M.	14	Snap-up....	260	286	24	Yes.	60	Separated..	Work
7	Amer., col...	.....	M.	14	Stick-up....	260	265	12	Yes.	60	Separated..	Work
8	Amer., col...	.....	M.	14	Snap-up....	260	263	26	Yes.	50	Porter......	Home
9	Amer., col...	.....	M.	14	Spare-boy...	260	262	24	Yes.	34	Truckman.	Work
10	German, N..	.....	M.	14	Snap-up....	234	257	14	Yes.	60	Slater......	Work
11	German, F..	(c)	M.	14	Spare boy...	245	247	25	Yes.	55	Dead......	Work
12	German, F..	(c)	M.	14	Take-out....	180	216	24	Yes.	26	Dead......	Work
13	German, F..	48	M.	14	Water boy..	26	26	1	Yes.	70	Iron molder	Home
14	German, F..	6	M.	14	Snap-up....	52	53	4	Yes.	73	Laborer....	Home
15	Amer., col...	.....	M.	15	Stick-up....	230	340	28	Yes.	60	Dead......	Work

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[a] Including 1 other member.

[b] First year's business; no profits.

OCCUPATION, AND EDUCATION OF THE CHILD, AND ECONOMIC CONDETAIL, FOR EACH STATE—Continued.

WISCONSIN—Concluded.

Membership of family.						Income of family past year.						Total earnings and income past year.	Am't retained by children 16 years and over.	Rent past year.	Per capita weekly income of family less earnings of children.		Family number.
Children of ages—				Total.	Total wage earners.	Earnings of—					Other.						
						Father.	Mother.	Children—							Under 16.	Under 14.	
Under 10.	10 to 13.	14 and 15.	16 and over.					Under 14.	14 and 15.	16 and over.							
6	2	1	.....	11	2	$460	......	....	$114	......	....	$574	......	O.H.	$0.80	......	13
2	1	1	2	8	4	400	......	....	144	$450	....	994	......	O.H.	2.04	......	14
5	2	1	.....	10	2	400	......	....	234	......	$19	653	......	O.H.	.81	......	15
1	1	1	3	7	4	230	......	....	72	720	....	1,022	$167	$84	2.61	......	16
1	...	1	.....	4	2	320	......	....	96	......	....	416	......	120	1.54	......	17
....	1	2	.....	a 6	3	420	......	....	182	......	....	602	......	84	1.35	......	18
6	1	2	.....	11	3	450	......	....	228	......	....	678	......	48	.79	......	19
1	1	2	1	7	4	390	......	....	60	250	....	700	......	84	1.76	......	20
2	1	1	1	7	3	675	......	....	252	362	65	1,354	......	120	3.03	......	21
2	1	2	3	10	5	400	......	....	250	878	....	1,528	......	108	2.46	......	22
1	2	1	1	7	3	540	......	....	300	365	9	1,214	......	60	2.51	......	23
....	...	1	1	3	2	....	......	....	134	275	....	409	......	108	1.76	......	24
....	...	1	2	5	4	438	......	....	252	1,700	....	2,390	1,336	O.H.	8.22	......	25
2	2	2	.....	8	2	750	......	....	260	......	....	1,010	......	120	1.80	......	26
2	2	1	.....	7	2	540	......	....	128	......	....	668	......	O.H.	1.48	......	27
3	1	1	1	8	3	500	......	....	278	307	....	1,085	......	O.H.	1.94	......	28
1	2	1	1	7	2	(b)	......	....	250	252	40	542	......	O.H.	.80	......	29
3	1	2	.....	8	2	504	......	....	250	......	....	754	......	84	1.21	......	30
....	2	1	2	a 7	4	....	$225	....	280	675	60	1,240	......	O.H.	2.64	......	31
2	2	1	2	9	3	283	......	....	72	310	....	665	......	72	1.27	......	32
2	2	2	.....	8	2	352	......	....	294	......	....	646	......	84	.85	......	33
....	1	1	2	6	4	345	......	....	307	564	....	1,216	208	78	2.91	......	34
3	2	2	2	11	4	440	......	....	250	643	84	1,417	......	O.H.	2.04	......	35
....	1	1	3	7	5	294	......	....	120	875	....	1,289	......	O.H.	3.21	......	36
1	1	1	2	7	4	288	......	....	96	600	72	1,056	219	O.H.	2.64	......	37
4	1	1	3	11	4	300	......	....	250	975	48	1,573	687	O.H.	2.31	......	38
1	2	1	1	7	2	600	......	....	254	......	20	874	......	72	1.70	......	39
3	1	1	.....	7	2	700	......	....	96	......	84	880	......	O.H.	2.15	......	40
4	2	1	1	a11	3	375	......	....	254	375	....	1,004	......	60	1.31	......	41
....	...	1	2	5	4	318	......	....	120	316	....	754	......	60	2.44	......	42
4	3	1	1	11	3	300	......	....	288	324	....	912	124	O.H.	1.09	......	43

MISSOURI.

Under 10.	10 to 13.	14 and 15.	16 and over.	Total.	Total wage earners.	Father.	Mother.	Children under 14.	Children 14 and 15.	Children 16 and over.	Other.	Total earnings and income past year.	Am't retained by children 16 years and over.	Rent past year.	Under 16.	Under 14.	Family number.
....	2	1	.....	4	3	....	$450	$138	$210	......	....	$798	......	$78	$2.16	$3.17	1
....	1	....	1	3	2	....	......	154	.....	$251	$104	509	......	60	2.28	2.28	2
....	1	1	1	5	3	$364	......	.....	113	125	....	602	......	96	1.88	......	3
1	2	1	.....	6	3	525	50	.....	171	......	....	746	......	120	1.84	......	4
2	...	1	1	6	4	450	26	.....	286	286	....	1,048	......	60	2.44	......	5
....	...	1	1	3	2	....	52	.....	286	......	....	338	......	48	.33	......	6
1	...	2	2	6	4	....	299	.....	265	442	....	1,006	$21	60	2.38	......	7
2	...	1	.....	5	2	433	......	.....	263	......	21	717	......	120	1.75	......	8
....	...	2	.....	4	3	329	150	.....	262	......	....	741	......	120	2.30	......	9
....	...	1	.....	3	3	260	52	.....	257	......	6	575	......	78	2.04	......	10
2	2	1	.....	6	2	....	52	.....	247	......	64	363	......	180	.37	......	11
1	2	1	1	6	3	....	130	.....	216	345	....	691	......	108	1.52	......	12
3	...	1	.....	a7	2	....	......	.....	26	585	....	611	......	120	1.61	......	13
2	...	1	.....	5	2	421	......	.....	53	......	....	474	......	72	1.62	......	14
....	...	1	.....	2	2	....	50	.....	340	......	....	390	......	90	.48	......	15

[c] Not reported.

TABLE XXVII.—CHILDREN UNDER 16 YEARS OF AGE AT WORK: AGE, DITION OF THE CHILD AND THE FAMILY, IN

WEST VIRGINIA.

Family number.	The father.		The child.								Membership of family.	
											Occupation or condition of—	
	Race and nativity.	Yrs. in U. S.	Sex.	Age.	Occupation or industry.	Days worked past year.	Earnings past year.	Mos. since beginning work.	Can read and write.	Mos. school attendance.	Father.	Mother.
1	Croatian, F.	9	M.	9	Mold boy	108	$99	14	No.	7	Mixer	Home
2	Amer., col.		M.	9	Take-out	18	14	1	No.	24	Miner	Home
			M.	11	Take-out	24	19	1	No.	32		
3	German, F.	24	M.	10	Carry-in	77	77	6	Yes.	30	Needle etcher.	Work
			M.	11	Carry-in	132	133	6	Yes.	36		
			M.	12	Clean-off	109	110	5	Yes.	36		
			M.	15	Clean-off	277	284	29	Yes.	63		
4	American		M.	10	Carry-in	12	10	3	Yes.	48	Dead	Work
			M.	12	Carry-in	276	202	12	Yes.	60		
			M.	14	Carry-in	288	281	12	Yes.	60		
5	American		M.	10	Carry-in	250	250	12	Yes.	30	Polisher	Home
			M.	12	Carry-in	250	250	12	Yes.	40		
			F.	14	Flute cutter.	250	250	24	Yes.	70		
6	American		M.	10	Carry-in	51	38	2	No.	15	Laborer	Dead
			F.	12	Washer	100	75	6	Yes.	42		
			M.	13	Warm-in	271	256	12	Yes.	25		
			M.	15	Warm-in	231	222	11	No.	2		
7	Slovak, F.	21	M.	10	Clean-off	52	48	2	Yes.	20	Laborer	Home
			M.	12	Clean-off	52	48	2	Yes.	20		
			M.	14	Mold boy	78	78	3	Yes.	30		
8	Slav., F.	20	M.	10	Mold boy	200	200	8	Yes.	30	Sweeper	Home
			M.	14	Mold boy	240	220	17	No.	40		
9	American		M.	10	Washer	6	6	¼	Yes.	30	Watchman	Home
			F.	15	Wrapper	240	160	11	Yes.	48		
10	American		M.	11	Carry-in	100	90	7	Yes.	12	Miner	Work
11	American		M.	11	Carry-over	24	10	1	Yes.	53	Cooper	Home
12	American		M.	11	Crimper	200	200	9	No.	30	Dead	Home
			F.	14	Cleaner	120	78	3	Yes.	36		
			M.	15	Washer	200	220	36	Yes.	48		
13	American		M.	11	Carry-in	12	9	1	Yes.	40	Carpenter	Home
			M.	15	Carry-in	66	40	48	Yes.	40		
14	American		M.	12	Crack-off	250	275	36	Yes.	30	Dead	Home
15	American		M.	12	Carry-in	24	22	2	Yes.	54	Laborer	Home
16	German, N.		M.	12	Clean-off	250	275	18	Yes.	40	Cooper	Home
17	American		M.	12	Clean-off	180	155	11	Yes.	33	Dead	Home
			M.	13	Clean-off	180	159	11	Yes.	33		
			F.	14	Domestic	168	70	24	Yes.	36		
			F.	15	Domestic	104	61	12	Yes.	42		
18	American		M.	12	Carry-in	156	134	29	Yes.	39	Grinder	Home
			M.	14	Carry-in	270	259	32	Yes.	46		
19	American		M.	12	Clean-off	24	22	1	Yes.	54	Carpenter	Home
			M.	14	Clean-off	72	66	5	Yes.	54		
20	American		M.	12	Carry-in	192	176	15	Yes.	24	Laborer	Home
			M.	14	Snap-up	192	208	15	Yes.	35		
21	American		M.	12	Clean-off	192	174	12	Yes.	31	Dead	Work
			M.	14	Clean-off	228	205	24	Yes.	36		
22	American		M.	12	Take-out	36	29	2	No.	20	Yard hand.	Home
			M.	14	Carry-in	36	29	2	No.	35		
			M.	15	Carry-in	25	20	1	No.	20		
23	Italian, F.	9	M.	12	Carry-in	104	65	4	No.	18	Carry in	Home
			M.	14	Carry-in	104	70	4	No.	27		
24	American		M.	12	Carry-in	72	66	8	Yes.	45	Dead	Home
			F.	14	Stamper, lamp burners.	180	180	8	Yes.	54		
25	American		M.	12	Presser's helper, stamping works.	52	39	24	Yes.	45	Laborer	Home
			F.	14	Wrapper	182	91	9	Yes.	45		

[a] Including 2 other members.

OCCUPATION, AND EDUCATION OF THE CHILD, AND ECONOMIC CONDETAIL, FOR EACH STATE—Continued.

WEST VIRGINIA.

Membership of family.						Income of family past year.						Total earnings and income past year.	Am't retained by children 16 years and over.	Rent past year.	Per capita weekly income of family less earnings of children.		Family number.
Children of ages—				Total.	Total wage earners.	Earnings of—					Other.						
						Father.	Mother.	Children—									
Under 10.	10 to 13.	14 and 15.	16 and over.					Under 14.	14 and 15.	16 and over.					Under 16.	Under 14.	
4	....	....	.....	6	2	$231	......	$99	.....	......	$36	$366	......	$120	$0.86	$0.86	1
4	1	1	1	9	4	722	......	33	.....	$413	18	1,186	......	54	2.46	2.46	2
2	3	1	.....	[a]10	6	627	$36	320	$284	......	28	1,295	......	120	1.33	1.88	3
....	2	1	.....	4	4	....	115	212	281	......	....	608	......	78	.55	1.90	4
....	2	1	2	[b]8	5	438	......	500	250	250	....	1,438	......	144	1.65	2.25	5
2	3	1	2	9	7	432	......	369	222	220	....	1,243	......	120	1.39	1.87	6
4	2	1	1	10	5	240	......	96	78	180	....	594	......	60	.81	.96	7
2	2	1	.....	7	3	375	......	200	220	......	48	843	......	120	1.16	1.77	8
2	1	1	2	8	5	660	......	6	160	410	58	1,294	......	O.H.	2.71	3.10	9
3	1	....	.....	6	3	384	15	90	.....	......	....	489	......	60	1.28	1.28	10
3	2	1	1	9	3	378	......	10	.....	378	....	766	$118	114	1.62	1.62	11
....	2	2	1	6	3	....	......	200	298	......	....	498	......	O.H.	......	.96	12
....	1	1	.....	4	3	300	......	9	40	......	....	349	......	120	1.44	1.63	13
....	1	2	1	5	2	....	......	275	.....	350	68	693	340	O.H.	1.61	1.61	14
....	1	....	1	4	3	228	......	22	.....	388	120	758	128	O.H.	3.54	3.54	15
3	2	....	1	8	3	500	......	275	.....	178	3	956	178	108	1.64	1.64	16
2	3	2	.....	8	4	....	......	314	131	......	....	445	......	O.H.	......	.31	17
2	1	1	2	8	5	547	......	134	259	496	12	1,448	104	150	2.54	3.16	18
1	1	1	1	6	4	240	......	22	66	112	....	440	......	168	1.13	1.34	19
1	1	1	2	7	4	168	......	176	208	45	60	657	......	144	.75	1.32	20
1	2	1	.....	5	3	....	98	174	205	......	....	477	......	120	.38	1.17	21
4	2	2	1	11	5	60	......	29	49	59	300	497	......	48	.73	.82	22
....	1	2	.....	5	3	275	......	65	70	......	1	411	......	O.H.	1.06	1.33	23
....	1	1	3	6	5	....	......	66	180	908	....	1,154	149	120	2.91	3.49	24
....	2	1	4	9	7	365	......	39	91	780	....	1,275	194	102	2.45	2.64	25

[b] Including 1 other member.

TABLE XXVII.—CHILDREN UNDER 16 YEARS OF AGE AT WORK: AGE, DITION OF THE CHILD AND THE FAMILY, IN

WEST VIRGINIA—Continued.

Family number.	The father.		The child.									Membership of family.	
												Occupation or condition of—	
	Race and nativity.	Yrs. in U. S.	Sex.	Age.	Occupation or industry.	Days worked past year.	Earnings past year.	Mos. since beginning work.	Can read and write.	Mos. school attendance.		Father.	Mother.
26	American		F.	12	Wrapper	24	$18	1	Yes.	54		Blower	Home
			M.	14	Carry-over	141	134	6	Yes.	70			
27	American		F.	12	Wiper	30	23	2	Yes.	45		Laborer	Home
			F.	14	Wiper	54	41	3	Yes.	63			
			F.	15	Sorter, tin-plate.	288	240	24	Yes.	54			
28	American		M.	12	Carry-over	65	58	20	Yes.	45		Finisher	Home
			M.	15	Snap-up	250	300	34	Yes.	63			
29	American		M.	12	Carry-over	144	119	9	Yes.	50		Deserter	Home
			M.	15	Clean-off	216	198	72	Yes.	45			
30	American		M.	12	Carry-over	104	73	10	Yes.	36		Divorced	Work
			F.	15	Decorator	300	180	10	Yes.	42			
31	American		M.	12	Carry-in	18	17	1	Yes.	(a)		Stone mason.	Home
			F.	15	Decorator	24	14	1	Yes.	48			
32	American		M.	13	Carry-in	117	100	20	Yes.	36		Teamster	Home
33	American		M.	13	Snap-up	156	172	24	Yes.	45		Engineer	Home
34	American		M.	13	Carry-in	250	275	12	Yes.	30		Laborer	Dead
35	American		M.	13	Carry-in	102	94	10	Yes.	52		Laborer	Work
36	German, N		M.	13	Stick-up	252	231	32	No.	24		Dead	Work
37	English, N		M.	13	Mold boy	30	31	1	Yes.	45		Watchman.	Home
38	English, N		M.	13	Crack-off	250	250	12	Yes.	40		Machinist	Work
39	German, F	22	M.	13	Carry-over	144	137	10	Yes.	63		Dead	Home
40	Italian, F	15	M.	13	Carry-in	290	261	13	Yes.	40		Incapac	Work
41	Italian, F	5	M.	13	Carry-in	265	176	32	No.	6		Miner	Home
42	Lith., F	12	M.	13	Stick-up	263	210	12	Yes.	18		Miner	Home
43	American		M.	13	Carry-over	240	192	12	Yes.	36		Dead	Work
			F.	13	Roaster tender, enamel works.	26	16	1	Yes.	40			
44	German, N		F.	13	Selector	132	88	7	Yes.	54		Blacksmith	Home
45	German, F	38	F.	13	Wiper	250	189	12	Yes.	60		Packer	Home
46	American		M.	13	Clean-off	275	303	11	Yes.	60		Packer	Dead
			M.	14	Clean-off	275	303	11	Yes.	60			
47	American		M.	13	Mold boy	18	17	4	Yes.	72		Heater's helper.	Work
			M.	14	Mold boy	168	154	8	Yes.	54			
48	American		M.	13	Carry-over	40	17	2	Yes.	72		Musician	Home
			M.	14	Clean-off	48	44	9	Yes.	72			
49	Lith., F	21	M.	13	Carry-over	36	36	2	Yes.	36		Packer	Home
			M.	14	Carry-in	48	48	2	Yes.	36			
			M.	15	Carry-in	123	123	6	Yes.	63			
50	German, F	26	M.	13	Clean-off	125	115	6	Yes.	70		Dead	Home
			F.	14	Glazer	307	332	24	Yes.	70			
51	American		F.	13	Touch-up	75	38	3	Yes.	54		Dead	Work
			M.	14	Carry-over	258	198	12	No.	36			
52	American		M.	13	Carry-over	208	160	12	Yes.	37		Blacksmith	Home
			M.	15	Selector	210	157	18	Yes.	45			
			M.	15	Snap-up	282	338	24	Yes.	45			
53	American		M.	13	Stick-up	137	137	12	Yes.	42		Boarding-house keeper.	Home
			M.	15	Mold boy	250	250	12	Yes.	56			
54	American		M.	13	Carry-over	13	10	1	Yes.	35		Pumpman.	Home
			M.	15	Carry-in	155	140	24	Yes.	36			
55	American		M.	13	Machine boy	225	236	36	No.	20		Laborer	Home
			M.	15	Take-off	250	262	36	Yes.	25			
56	American		M.	13	Carry-in	30	27	1	Yes.	30		Mortar mixer.	Home
			F.	13	Washer	30	27	1	Yes.	35			
			F.	15	Sorter, sack factory.	275	130	72	Yes.	20			
57	American		M.	13	Mold boy	225	236	18	Yes.	40		Laborer	Home
			F.	15	Grinder	225	193	30	Yes.	50			
58	American		M.	13	Mold boy	225	216	9	Yes.	35		Laborer	Work
			F.	15	Packer	75	67	3	Yes.	50			
59	English, F	36	M.	13	Stick-up	274	260	18	Yes.	58		Blower	Home
			F.	15	Operator, telephone.	56	56	2	Yes.	54			

a Still in school.

b Including 1 other member.

OCCUPATION, AND EDUCATION OF THE CHILD, AND ECONOMIC CON-
DETAIL, FOR EACH STATE—Continued.

WEST VIRGINIA—Continued.

Membership of family.						Income of family past year.						Total earnings and income past year.	Am't retained by children 16 years and over.	Rent past year.	Per capita weekly income of family less earnings of children.		Family number.
Children of ages—				Total.	Total wage earners.	Earnings of—					Other.				Under 16.	Under 14.	
Under 10.	10 to 13.	14 and 15.	16 and over.			Father.	Mother.	Children— Under 14.	Children— 14 and 15.	Children— 16 and over.							
1	1	1	4	9	7	$548	......	$18	$134	$1,459	50	$2,209	......	$156	$4.40	$4.68	26
3	3	2	1	11	5	268	......	23	281	282	10	864	......	O.H.	.98	1.47	27
3	2	1	3	11	5	750	......	58	300	514	6	1,628	$294	O.H.	2.22	2.74	28
....	1	1	......	3	2	......	......	119	198	....	40	357	......	O.H.	.26	1.53	29
1	1	1	......	4	3	......	$155	73	180	....	46	454	......	120	.97	1.83	30
3	1	1	......	7	3	900	......	17	14	....	15	946	......	48	2.51	2.55	31
....	1	....	4	7	6	542	......	100	.....	846	5	1,493	485	120	3.83	3.83	32
3	2	....	1	8	3	588	......	172	.....	224	....	984	......	144	1.95	1.95	33
1	1	....	1	4	2	350	......	275	.....	....	6	631	......	O.H.	1.71	1.71	34
....	1	....	2	5	5	240	50	94	.....	480	....	864	246	120	2.96	2.96	35
....	1	....	1	3	3	......	72	231	.....	111	156	570	3	60	2.17	2.17	36
1	1	....	1	5	3	765	......	31	.....	247	18	1,061	......	168	3.96	3.96	37
....	1	....	......	3	3	51	78	250	.....	....	....	379	......	80	.83	.83	38
....	2	....	1	4	2	......	......	137	.....	204	....	341	......	O.H.	.98	.98	39
4	1	....	1	8	3	......	182	261	.....	187	3	633	......	O.H.	.89	.89	40
3	1	....	......	6	2	460	......	176	.....	....	36	672	......	66	1.59	1.59	41
4	2	....	......	8	2	646	......	210	.....	....	....	856	......	66	1.55	1.55	42
....	2	....	2	5	5	......	104	208	.....	466	120	898	......	96	2.65	2.65	43
....	1	....	2	5	3	720	......	88	.....	275	....	1,083	67	O.H.	3.83	3.83	44
1	2	....	1	6	2	500	......	189	.....	....	....	689	......	240	1.60	1.60	45
3	3	1	1	9	3	481	......	303	303	....	4	1,091	......	O.H.	1.04	1.68	46
....	1	1	1	5	5	288	260	17	154	54	....	773	......	144	2.32	2.91	47
....	1	1	......	4	3	800	......	17	44	....	....	861	......	120	3.85	4.06	48
1	1	2	......	6	4	311	......	36	171	....	....	518	......	150	1.00	1.54	49
....	1	1	1	4	3	......	......	115	332	332	....	779	......	72	1.60	3.19	50
3	1	1	......	6	3	......	75	38	198	....	....	311	......	90	.24	.88	51
1	1	2	......	6	4	104	......	160	495	....	6	765	......	O.H.	.35	1.94	52
4	2	1	2	[b]12	4	440	......	137	250	280	[c]155	1,262	......	O.H.	1.40	1.80	53
1	2	1	1	7	4	620	......	10	140	230	22	1,022	230	O.H.	2.40	2.78	54
5	2	1	......	10	3	437	......	236	262	....	118	1,053	......	120	1.07	1.57	55
2	2	1	......	7	4	450	......	54	130	....	....	634	......	108	1.24	1.59	56
....	1	1	......	4	3	350	......	236	193	....	8	787	......	120	1.72	2.65	57
4	1	1	2	10	6	225	50	216	67	483	2	1,043	......	120	1.46	1.59	58
1	1	1	1	6	4	640	......	260	56	444	41	1,441	......	180	3.61	3.79	59

[c] Including $50 received from sale of cow.

TABLE XXVII.—CHILDREN UNDER 16 YEARS OF AGE AT WORK: AGE, DITION OF THE CHILD AND THE FAMILY, IN

WEST VIRGINIA—Continued.

Family number.	The father.		The child.								Membership of family. Occupation or condition of—	
	Race and nativity.	Yrs. in U. S.	Sex.	Age.	Occupation or industry.	Days worked past year.	Earnings past year.	Mos. since beginning work.	Can read and write.	Mos. school attendance.	Father.	Mother.
60	American		M.	14	Crack-off	130	$73	4	Yes.	54	Dead	Home
61	American		M.	14	Carry-in	6	6	$\frac{1}{4}$	Yes.	(a)	Salesman, hardware.	Home
62	American		M.	14	Stick-up	250	264	12	Yes.	49	Mixer	Home
63	American		M.	14	Machine boy.	78	105	3	Yes.	30	Laborer	Home
64	American		M.	14	Carry-in	260	234	18	Yes.	46	Presser	Home
65	American		M.	14	Carry-in	174	156	21	Yes.	32	Laborer	Home
66	American		M.	14	Grinder	282	282	22	Yes.	18	Laborer	Dead
67	American		M.	14	Stick-up	230	276	48	Yes.	24	Dead	Home
68	American		M.	14	Clean-off	188	194	24	Yes.	59	Guard, penitentiary.	Home
69	American		M.	14	Carry-in	170	153	11	Yes.	53	Laborer	Home
70	American		M.	14	Carry-over	249	299	18	Yes.	30	Guard, penitentiary.	Home
71	American		M.	14	Carry-in	300	300	6	Yes.	64	Policy writer.	Home
72	American		M.	14	Carry-over	273	245	18	Yes.	42	Leersman	Home
73	American		M.	14	Clean-off	264	242	12	Yes.	63	Laborer	Home
74	American		M.	14	Carry-over	36	30	4	Yes.	63	Blacksmith	Home
75	American		M.	14	Snap-up	228	230	42	Yes.	36	Salesman, traveling.	Home
76	American		M.	14	Carry-in	216	198	24	Yes.	45	Dead	Home
77	American		M.	14	Snap-up	72	79	10	Yes.	63	Dead	Home
78	American		M.	14	Carry-in	192	154	42	Yes.	19	Ice maker	Home
79	American		M.	14	Mold boy	240	220	11	Yes.	66	Fireman	Home
80	American		M.	14	Spare boy	48	44	2	No.	12	Laborer	Home
81	American		M.	14	Mold boy	275	288	12	Yes.	50	Incapac	Home
82	American		M.	14	Carry-in	80	82	8	Yes.	40	Hook-up	Home
83	American		M.	14	Machine boy.	290	304	36	Yes.	30	Dead	Home
84	American		M.	14	Carry-in	264	211	24	Yes.	63	Laborer	Home
85	American		M.	14	Take-out	260	204	48	Yes.	36	Laborer	Home
86	American		M.	14	Clean-off	200	220	24	Yes.	40	Carpenter	Home
87	American		M.	14	Clean-off	294	296	12	Yes.	70	Cutter	Home
88	American		M.	14	Carry-in	24	26	1	Yes.	48	Carry-in	Home
89	American		M.	14	Delivery boy, store.	234	72	9	Yes.	56	Deserter	Home
90	American		M.	14	Machine boy.	394	313	12	Yes.	35	Stone mason.	Home
91	American		M.	14	Carry-in	79	71	12	Yes.	45	Dead	Home
92	American		M.	14	Carry-over	18	13	2	Yes.	72	Peddler	Home
93	American		M.	14	Machine boy.	90	94	9	Yes.	40	Dead	Work
94	American		M.	14	Machine boy.	156	156	60	Yes.	31	Dead	Work
95	American		M.	14	Carry-in	96	79	6	Yes.	72	Dead	Work
96	American		M.	14	Mold boy	24	22	2	Yes.	63	Dead	Work
97	American		M.	14	Clean-off	120	110	8	Yes.	63	Divorced	Work
98	American		M.	14	Carry-in	264	224	24	No.	10	Divorced	Work
99	American		M.	14	Carry-over	300	250	36	Yes.	40	Deserter	Work
100	English, N		M.	14	Carry-in	250	200	12	Yes.	60	Presser	Home
101	English, N		M.	14	Mold boy	250	262	28	Yes.	36	Deserter	Work
102	German, N		M.	14	Spare boy	60	55	5	Yes.	72	Die-maker	Home
103	German, N		M.	14	Snap-up	144	150	18	Yes.	63	Laborer	Home
104	German, N		M.	14	Carry-in	78	86	3	Yes.	30	Gatherer	Home
105	German, N		M.	14	Snap-up	144	158	36	Yes.	(c)	Miner	Home
106	German, N		M.	14	Clean-off	180	165	12	Yes.	54	Blower	Home
107	German, N		M.	14	Carry-over	72	59	5	Yes.	(c)	Laborer	Home
108	Irish, N		M.	14	Carry-in	246	221	36	Yes.	36	Dead	Work
109	English, F	7	M.	14	Crack-off	286	286	34	Yes.	70	Engineer	Home
110	English, F	20	M.	14	Carry-in	96	96	8	Yes.	63	Engineer	Home
111	French, F	29	M.	14	Crack-off	40	38	24	Yes.	68	Blower	Home

[a] Still in school.

[b] Including 1 other member.

OCCUPATION, AND EDUCATION OF THE CHILD, AND ECONOMIC CONDETAIL, FOR EACH STATE—Continued.

WEST VIRGINIA—Continued.

Membership of family.						Income of family past year.						Total earnings and income past year.	Am't retained by children 16 years and over.	Rent past year.	Per capita weekly income of family less earnings of children.		Family number.
Children of ages—				Total.	Total wage earners.	Earnings of—					Other.				Under 16.	Under 14.	
Under 10.	10 to 13.	14 and 15.	16 and over.			Father.	Mother.	Children— Under 14.	Children— 14 and 15.	Children— 16 and over.							
....	...	1	.....	2	1	....	......	....	$73	......	$780	$853	......	O.H.	$7.50	......	60
....	1	1	2	6	3	$1,800	......	....	6	$440	180	2,426	$440	$270	7.76	......	61
1	2	1	3	9	4	600	......	....	264	489	....	1,353	339	180	2.33	......	62
3	1	1	1	8	3	550	......	....	105	270	25	950	120	192	2.03	......	63
3	...	1	.....	6	2	1,260	......	....	234	......	58	1,552	......	132	4.22	......	64
1	2	1	3	9	5	552	......	....	156	1,503	48	2,259	......	O.H.	4.49	......	65
....	1	1	2	5	3	240	......	....	282	282	....	804	......	84	2.01	......	66
....	...	1	1	3	2	....	......	....	276	276	....	552	......	O.H.	1.77	......	67
1	1	1	1	6	3	900	......	....	194	234	....	1,328	156	1.20	3.63	......	68
1	...	1	1	5	2	148	......	....	153	......	20	321	......	96	.65	......	69
1	1	1	.....	5	2	792	......	....	199	......	....	991	......	120	3.05	......	70
2	1	1	2	*b* 9	4	630	......	....	300	570	....	1,500	......	180	2.56	......	71
....	...	1	1	4	2	309	......	....	245	......	....	554	......	120	1.49	......	72
....	1	1	2	6	4	120	......	....	242	118	....	480	118	O. H.	.76	......	73
4	1	1	2	10	4	612	......	....	30	416	....	1,058	......	O. H.	1.98	......	74
....	1	1	1	5	3	864	......	....	230	209	29	1,332	......	(*c*)	4.24	......	75
1	1	1	3	7	4	....	......	....	198	907	....	1,105	128	96	2.49	......	76
1	...	2	4	8	5	....	......	....	79	2,266	....	2,345	786	180	5.45	......	77
2	1	1	.....	6	2	432	......	....	154	......	11	597	......	84	1.42	......	78
2	...	1	1	6	3	791	......	....	220	520	....	1,531	......	108	4.20	......	79
3	1	1	2	9	3	270	......	....	44	270	....	584	......	108	1.15	......	80
..	1	1	1	*b* 6	2	....	......	....	288	525	....	813	......	156	1.68	......	81
3	...	1	1	7	3	400	......	....	82	300	....	782	......	36	1.92	......	82
....	...	1	1	3	2	....	......	....	304	270	....	574	......	96	1.73	......	83
3	...	1	1	7	3	200	......	....	211	200	....	611	100	O. H.	1.10	......	84
3	2	1	.....	8	2	604	......	....	204	......	87	895	......	O.H.	1.66	......	85
3	1	1	3	10	4	750	......	....	220	430	4	1,404	60	O. H.	2.28	......	86
3	...	1	.....	*b* 7	3	650	......	....	296	......	....	946	......	216	1.79	......	87
3	1	1	1	8	3	550	......	....	26	340	....	916	335	240	2.14	......	88
....	1	1	1	4	2	....	......	....	72	168	78	318	68	84	1.18	......	89
3	1	1	1	8	3	1,080	......	....	313	360	....	1,753	90	84	3.46	......	90
1	...	1	5	8	5	....	......	....	71	2,024	....	2,095	1,378	O.H.	4.87	......	91
....	...	1	.....	3	2	360	......	....	13	......	....	373	......	84	2.31	......	92
....	1	1	.....	3	2	....	$75	....	94	......	10	179	......	O. H.	.54	......	93
1	2	1	.....	*b* 6	2	....	624	....	156	......	8	788	......	174	2.03	......	94
....	1	1	1	4	3	....	40	....	79	159	21	299	......	84	1.06	......	95
2	...	1	.....	4	2	....	144	....	22	......	....	166	......	96	.69	......	96
....	...	1	.....	2	2	....	153	....	110	......	....	263	......	72	1.47	......	97
1	1	1	.....	4	2	....	210	....	224	......	....	434	......	84	1.01	......	98
....	...	1	.....	2	2	....	300	....	250	......	....	550	......	O. H.	2.88	......	99
2	1	1	.....	6	2	600	......	....	200	......	....	800	......	78	1.92	......	100
1	...	1	2	5	4	....	75	....	262	550	....	887	......	84	2.40	......	101
3	2	1	.....	8	2	240	......	....	55	......	....	295	......	72	.58	......	102
1	1	1	1	6	3	222	......	....	150	378	....	750	118	84	1.92	......	103
2	1	1	.....	6	2	623	......	....	86	......	18	727	......	120	2.05	......	104
....	...	1	.....	3	2	252	......	....	158	......	....	410	......	O. H.	1.62	......	105
2	1	1	1	7	3	1,080	......	....	165	165	....	1,410	......	132	3.42	......	106
2	...	1	.....	5	2	352	......	....	59	......	....	411	......	132	1.35	......	107
....	...	1	2	4	4	....	140	....	221	619	....	980	307	96	3.65	......	108
1	2	1	.....	6	2	678	......	....	286	......	....	964	......	96	2.17	......	109
....	1	1	1	5	3	1,050	......	....	96	224	....	1,370	......	150	4.90	......	110
1	2	1	1	7	3	990	......	....	38	1,107	....	2,135	902	126	5.76	......	111

c Not reported.

TABLE XXVII.—CHILDREN UNDER 16 YEARS OF AGE AT WORK: AGE, DITION OF THE CHILD AND THE FAMILY, IN

WEST VIRGINIA—Continued.

Family number.	The father.		The child.									Membership of family. Occupation or condition of—	
	Race and nativity.	Yrs. in U. S.	Sex.	Age.	Occupation or industry.	Days worked past year.	Earnings past year.	Mos. since beginning work.	Can read and write.	Mos. school attendance.	Father.	Mother.
112	German, F..	20	M.	14	Warm-in....	260	$285	12	Yes.	72	Baker......	Home
113	German, F..	16	M.	14	Carry-over..	18	12	1	Yes.	72	Cigarmaker	Home
114	German, F..	40	M.	14	Clean-off....	192	176	12	Yes.	54	Stone mason.	Home
115	German, F..	28	M.	14	Carry-over..	65	52	3	Yes.	60	Laborer....	Home
116	German, F..	17	M.	14	Carry-over..	104	98	6	Yes.	65	Decorator..	Home
117	German, F..	28	M.	14	Carry-over..	12	8	1	Yes.	63	Rollers' helper.	Home
118	Irish, F.....	13	M.	14	Stick-up....	271	216	18	Yes.	25	Dead.......	Home
119	Irish, F.....	19	M.	14	Carry-in.....	120	110	7	Yes.	63	Laborer....	Home
120	Irish, F.....	40	M.	14	Snap-up.....	275	316	48	Yes.	50	Clerk.......	Home
121	Irish, F.....	39	M.	14	Carry-in.....	36	33	3	Yes.	72	Incapac....	Home
122	Irish, F.....	(a)	M.	14	Mold boy...	168	154	8	Yes.	72	Dead.......	Home
123	Italian, F...	13	M.	14	Carry-in....	270	200	26	No..	30	Laborer....	Home
124	Italian, F...	(a)	M.	14	Bowling alley.	90	90	24	Yes.	35	Dead.......	Home
125	Magyar, F..	10	M.	14	Stick-up....	39	36	2	Yes.	20	Laborer....	Work
126	Manx, F....	20	M.	14	Carry-in.....	129	113	7	Yes.	54	Contractor.	Home
127	American...	.....	F.	14	Glazer......	192	96	11	Yes.	36	Fireman...	Home
128	American...	.....	F.	14	Wiper......	129	99	18	Yes.	54	Carry-in....	Home
129	American...	.....	F.	14	Wiper......	280	268	30	Yes.	20	Deserter...	Home
130	American...	.....	F.	14	Packer......	250	312	11	Yes.	55	Pipe layer.	Home
131	American...	.....	F.	14	Packer......	125	137	12	Yes.	50	Millwright.	Home
132	American...	.....	F.	14	Capper......	125	112	6	Yes.	55	Track layer	Home
133	American...	.....	F.	14	Domestic...	334	84	11	Yes.	42	Laborer....	Work
134	American...	.....	F.	14	Washer.....	75	47	10	Yes.	20	Presser.....	Work
135	German, N..	.....	F.	14	Selector.....	204	155	9	Yes.	60	Blower.....	Home
136	German, N..	.....	F.	14	Selector.....	60	35	5	Yes.	36	Roller......	Home
137	Irish, F.....	55	F.	14	Wrapper....	200	120	18	Yes.	60	Incapac....	Home
138	German, N..	....	M.	14	Carry-in.....	261	192	12	Yes.	56	Packer.....	Home
			M.	15	Take-out....	261	228	12	Yes.	64		
139	American...	....	M.	14	Mold boy...	96	88	4	Yes.	72	Dead.......	Home
			M.	15	Clean-off....	192	176	10	Yes.	63		
140	American...	....	M.	14	Mold boy...	120	110	9	Yes.	40	Leersman..	Home
			M.	15	Snap-up.....	120	110	26	Yes.	48		
141	American...	....	M.	14	Carry-in.....	18	20	1	Yes.	45	Car inspector.	Home
			M.	15	Carry-in.....	18	20	1	Yes.	45		
142	American...	....	M.	14	Carry-in.....	66	54	3	Yes.	56	Blower.....	Home
			M.	15	Carry-over..	66	61	24	Yes.	64		
143	American...	....	M.	14	Carry-in.....	280	252	12	Yes.	35	Teamster..	Home
			M.	15	Carry-in.....	256	230	33	Yes.	35		
144	American...	....	M.	14	Carry-in.....	78	86	3	Yes.	40	Shearer....	Home
			M.	15	Carry-in.....	78	86	3	Yes.	50		
145	American...	....	M.	14	Carry-over..	168	151	12	Yes.	56	Carpenter..	Home
			M.	15	Cook, country club.	144	84	36	Yes.	54		
146	American...	....	M.	14	Carry-in.....	240	209	12	Yes.	72	Engineer...	Home
			M.	15	Snap-up.....	240	215	12	Yes.	72		
147	Irish, N.....	....	M.	14	Carry-in.....	60	54	3	Yes.	35	Furnace man.	Home
			M.	15	Carry-over..	250	250	18	Yes.	30		
148	English, F..	40	M.	14	Mold boy...	258	222	11	Yes.	49	Laborer....	Dead
			M.	15	Mold boy...	258	222	11	Yes.	56		
149	French, F...	28	M.	14	Stick-up....	286	218	12	Yes.	35	Blower.....	Home
			M.	15	Snap-up....	200	200	24	Yes.	70		
150	American...	....	M.	14	Warm-in....	294	302	51	Yes.	32	Dead.......	Home
			F.	15	Sorter.......	294	206	27	Yes.	56		
151	American...	....	M.	14	Carry-in.....	216	194	9	Yes.	63	Idle........	Home
			F.	15	Beader, stamp works.	300	375	12	Yes.	63		

a Not reported.

OCCUPATION, AND EDUCATION OF THE CHILD, AND ECONOMIC CONDETAIL, FOR EACH STATE—Continued.

WEST VIRGINIA—Continued.

Membership of family.						Income of family past year.						Total earnings and income past year.	Am't retained by children 16 years and over.	Rent past year.	Per capita weekly income of family less earnings of children.		Family number.
Children of ages—				Total.	Total wage earners.	Earnings of—					Other.				Under 16.	Under 14.	
Under 10.	10 to 13.	14 and 15.	16 and over.			Father.	Mother.	Children—									
								Under 14.	14 and 15.	16 and over.							
....	...	1	1	4	3	$728	......	....	$285	$343	$94	$1,450	......	$84	$5.60	......	112
1	2	1	3	9	5	660	......	....	12	1,130	72	1,874	$604	O. H.	3.98	......	113
1	1	1	3	8	5	576	......	....	176	1,459	......	2,211	378	108	4.89	......	114
1	1	1	1	6	3	351	......	....	52	750	102	1,255	498	72	3.86	......	115
2	1	1	.....	6	2	660	......	....	98	......	27	785	......	O. H.	2.20	......	116
2	2	1	.....	7	2	240	......	....	8	......	......	248	......	O. H.	.66	......	117
....	...	1	2	4	3	......	......	....	216	663	17	896	195	120	3.27	......	118
1	1	1	2	7	4	336	......	....	110	432	......	878	120	108	2.11	......	119
1	2	1	.....	6	2	75	......	....	316	......	98	489	......	120	.55	......	120
1	2	1	5	11	6	......	......	....	33	1,467	......	1,500	242	O. H.	2.56	......	121
....	...	1	2	4	3	......	......	....	154	316	......	470	......	96	1.52	......	122
3	1	1	1	8	3	387	......	....	200	406	5	998	......	66	1.92	......	123
2	...	1	1	5	2	......	......	....	90	290	160	540	......	O.H.	1.73	......	124
....	...	1	.....	3	3	162	$194	....	36	......	2	394	......	90	2.29	......	125
3	1	1	1	8	3	495	......	....	113	264	11	883	124	96	1.85	......	126
6	1	1	3	13	4	891	......	....	96	306	......	1,293	......	108	1.77	......	127
1	...	1	1	5	3	430	......	....	99	225	......	754	......	O.H.	2.52	......	128
2	1	1	1	6	2	......	......	....	268	267	......	535	......	84	.86	......	129
1	1	1	1	6	3	400	......	....	312	312	5	1,029	......	114	2.30	......	130
4	2	1	.....	9	2	776	......	....	137	......	......	913	......	90	1.66	......	131
1	...	1	1	5	3	908	......	....	112	160	......	1,180	100	162	4.11	......	132
....	1	1	2	6	5	158	240	....	84	206	2	690	......	72	1.94	......	133
....	1	1	.....	4	3	450	14	....	47	......	2	513	......	O.H.	2.24	......	134
3	2	1	.....	8	2	760	......	....	155	......	......	915	......	228	1.83	......	135
1	1	1	1	6	3	1,200	......	....	35	210	......	1,445	......	240	4.52	......	136
....	...	1	2	5	3	......	......	....	120	1,175	......	1,295	125	168	4.52	......	137
3	1	2	.....	8	3	540	......	....	420	......	......	960	......	150	1.30	......	138
....	2	2	.....	5	2	......	......	....	264	......	......	264	......	72	......	......	139
....	...	2	2	6	4	461	......	....	220	500	135	1,316	150	O.H.	3.51	......	140
3	...	2	2	9	4	489	......	....	40	516	10	1,055	......	O.H.	2.17	......	141
1	...	2	.....	5	3	750	......	....	115	......	......	865	......	84	2.88	......	142
2	1	2	.....	7	3	526	......	....	482	......	20	1,028	......	144	1.50	......	143
2	...	2	.....	6	3	480	......	....	172	......	......	652	......	O.H.	1.54	......	144
3	1	2	.....	8	3	518	......	....	235	......	2	755	......	96	1.25	......	145
3	...	2	.....	7	3	900	......	....	424	......	111	1,435	......	204	2.78	......	146
4	1	2	1	10	4	464	......	....	304	250	......	1,018	......	108	1.37	......	147
....	...	2	2	5	4	154	......	....	444	720	11	1,329	......	90	3.40	......	148
....	...	2	2	6	4	910	......	....	418	650	18	1,996	......	252	5.06	......	149
....	...	2	2	5	3	......	......	....	508	454	25	987	154	84	1.84	......	150
5	1	2	2	12	4	......	......	....	569	750	20	1,339	......	150	1.23	......	151

TABLE XXVII.—CHILDREN UNDER 16 YEARS OF AGE AT WORK: AGE, DITION OF THE CHILD AND THE FAMILY, IN

WEST VIRGINIA—Continued.

Family number.	The father.		The child.								Membership of family.	
											Occupation or condition of—	
	Race and nativity.	Yrs. in U. S.	Sex.	Age.	Occupation or industry.	Days worked past year.	Earnings past year.	Mos. since beginning work.	Can read and write.	Mos. school attendance.	Father.	Mother.
152	German, F..	16	M.	14	Carry-in.....	179	$165	18	Yes.	70	Furnace man.	Home
			F.	15	Wiper.......	128	135	18	Yes.	75		
153	German, F..	17	M.	14	Machine boy	275	288	18	Yes.	45	Smelter....	Home
			F.	15	Cementer...	250	225	24	Yes.	50		
154	American...	....	F.	14	Washer.....	264	132	12	Yes.	10	Laborer....	Home
			M.	15	Lathe hand, stamp works.	300	225	18	Yes.	15		
155	German, N..	....	F.	14	Packer......	25	18	1	Yes.	50	Driver.....	Home
			F.	15	Packer......	150	135	24	Yes.	40		
156	German, N..	....	F.	14	Transferer...	75	67	7	Yes.	45	Deserter ...	Home
			F.	15	Transferer...	250	225	10	Yes.	50		
157	American...	.....	M.	15	Carry-in.....	18	13	1	Yes.	48	Dead......	Work
158	American...	.....	M.	15	Feeder, nail factory.	120	84	12	Yes.	72	Deserter...	Work
159	American...	.....	M.	15	Carry-in.....	264	179	25	Yes.	56	Deserter...	Work
160	American...	.....	M.	15	Carry-in.....	258	205	15	Yes.	63	Deserter...	Work
161	American...	.....	M.	15	Carry-in.....	190	165	27	No..	15	Dead......	Work
162	American...	.....	M.	15	Carry-in.....	75	78	36	Yes.	45	Stamper...	Home
163	American...	.....	M.	15	Mold boy...	150	135	6	Yes.	55	Blower.....	Home
164	American...	.....	M.	15	Carry-in.....	257	218	60	Yes.	32	Dead......	Home
165	American...	.....	M.	15	Crimper.....	246	271	28	No..	30	Furnace man.	Home
166	American...	.....	M.	15	Carry-in.....	260	192	30	Yes.	60	Blacksmith	Home
167	American...	.....	M.	15	Press operator, sacks.	275	343	24	Yes.	48	Dead......	Home
168	American...	.....	M.	15	Wiper.......	72	66	(b)	(b)	(b)	Idle........	Home
169	American...	.....	M.	15	Clean-off....	144	132	18	Yes.	63	Laborer....	Home
170	American...	.....	M.	15	Snap-up....	240	290	12	Yes.	54	Solicitor, news.	Home
171	American...	.....	M.	15	Carry-in.....	268	221	14	Yes.	65	Dead.......	Home
172	American...	.....	M.	15	Miner, coal..	300	600	24	Yes.	24	Miner......	Dead
173	American...	.....	M.	15	Crack-off ...	264	242	26	Yes.	48	Painter....	Home
174	American...	.....	M.	15	Carry-over..	138	85	5	Yes.	63	Policeman .	Home
175	American...	.....	M.	15	Carry-in.....	99	99	3	Yes.	48	Blacksmith	Home
176	American...	.....	M.	15	Snap-up....	144	145	19	Yes.	63	Dead......	Home
177	American...	....	M.	15	Snap-up....	300	360	39	Yes.	36	Leersman..	Home
			M.	15	Snap-up....	300	360	39	Yes.	30		
178	Amer., col...	.....	M.	15	Carry-in.....	96	88	42	Yes.	70	Veterinary surg.	Home
179	French, N...	.....	M.	15	Stripper, tobacco.	300	150	18	Yes.	(b)	Roller......	Home
180	German, N..	....	F.	14	Wiper.......	16	8	1	Yes.	72	Engineer...	Home
			M.	15	Carry-in.....	268	282	48	Yes.	36		
181	German, N..	.....	M.	15	Snap-up....	192	211	12	Yes.	72	Dead.......	Work
182	German, N..	.....	M.	15	Snap-up....	200	200	24	Yes.	48	Miner......	Home
183	Irish, N.....	.....	M.	15	Carry-in.....	156	134	9	Yes.	64	Tailor......	Home
184	Irish, N.....	.....	M.	15	Carry-in.....	264	227	12	Yes.	42	Dead.......	Home
185	Irish, N.....	.....	M.	15	Stick-up....	288	264	28	Yes.	31	Plumber...	Home
186	German, F..	22	M.	15	Mold boy...	144	158	8	Yes.	72	Brewery hand.	Home
187	German, F..	35	M.	15	Carry-in.....	240	209	12	Yes.	(b)	Dyer.......	Home
188	German, F..	28	M.	15	Carry-in.....	252	219	12	Yes.	63	Carpenter..	Home
189	German, F..	40	M.	15	Carry-in.....	264	357	18	Yes.	72	Laborer....	Home
190	German, F..	14	M.	15	Bit boy.....	240	288	12	Yes.	80	Cutter.....	Home
191	German, F..	18	M.	15	Clean-off....	210	210	12	Yes.	60	Blower.....	Home
192	Irish, F.....	38	M.	15	Carry-over..	96	70	7	Yes.	63	Incapac....	Home
193	Italian, F...	12	M.	15	Stick-up....	283	248	12	No..	....	Laborer....	Home
194	English, F..	25	M.	15	Carry-in.....	102	88	36	Yes.	72	Laborer....	Home

a Including 1 other member.

OCCUPATION, AND EDUCATION OF THE CHILD, AND ECONOMIC CONDETAIL, FOR EACH STATE—Continued.

WEST VIRGINIA—Continued.

Membership of family.						Income of family past year.						Total earnings and income past year.	Am't retained by children 16 years and over.	Rent past year.	Per capita weekly income of family less earnings of children.		Family number.
Children of ages—				Total.	Total wage earners.	Earnings of—					Other.						
Under 10.	10 to 13.	14 and 15.	16 and over.			Father.	Mother.	Children— Under 14.	Children— 14 and 15.	Children— 16 and over.					Under 16.	Under 14.	
3	...	2	1	8	4	$666	......	....	$300	$590	$10	$1,566	......	O.H.	$3.04	......	152
2	1	2	.....	7	3	625	......	....	513	......	150	1,288	......	O.H.	2.13	......	153
3	...	2	2	9	5	351	......	....	357	536	18	1,262	$254	O.H.	1.93	......	154
2	2	2	1	9	4	576	......	....	153	225	24	978	53	O.H.	1.76	......	155
1	2	2	.....	6	2	....	......	....	292	......	61	353	......	$156	.20	......	156
....	...	1	1	3	3	....	$312	....	13	54	60	439	......	60	2.73	......	157
1	1	1	1	[a] 6	3	....	138	....	84	238	....	460	......	O.H.	1.21	......	158
1	1	2	.....	4	2	....	310	....	179	......	....	489	......	120	1.49	......	159
....	...	1	.....	2	2	....	50	....	205	......	....	255	......	72	.48	......	160
....	1	1	1	4	3	....	156	....	165	219	3	543	......	60	1.82	......	161
1	2	1	2	8	4	500	......	....	78	880	....	1,458	342	120	3.32	......	162
2	...	1	2	7	4	900	......	....	135	363	140	1,538	......	O.H.	3.85	......	163
1	1	1	1	5	2	....	......	....	218	639	....	857	274	103	2.46	......	164
3	2	1	2	10	4	308	......	....	271	421	5	1,005	......	60	1.41	......	165
4	1	1	2	10	3	750	......	....	192	218	....	1,160	......	180	1.86	......	166
....	...	1	4	6	4	....	......	....	343	955	90	1,388	125	O.H.	3.35	......	167
....	...	1	5	8	4	....	......	....	66	1,424	54	1,544	1,008	O.H.	3.55	......	168
2	1	1	1	7	3	216	......	....	132	216	....	564	......	90	1.19	......	169
1	1	2	3	9	5	550	......	....	290	1,545	....	2,385	921	144	4.48	......	170
....	...	1	1	3	2	....	......	....	221	240	40	501	......	120	1.79	......	171
....	...	1	2	4	3	750	......	....	600	170	....	1,520	......	72	4.42	......	172
1	2	1	1	7	2	750	......	....	242	......	100	1,092	......	O.H.	2.34	......	173
4	...	1	2	9	3	579	......	....	85	540	120	1,324	360	O.H.	2.65	......	174
....	1	1	1	5	3	600	......	....	99	100	....	799	100	150	2.69	......	175
....	...	1	3	5	3	....	......	....	145	752	....	897	336	O.H.	2.89	......	176
1	...	2	2	7	5	450	......	....	720	670	....	1,840	232	120	3.08	......	177
....	...	1	3	6	4	1,200	......	....	88	502	....	1,790	250	O.H.	5.46	......	178
....	1	1	2	6	4	1,440	......	....	150	620	....	2,210	290	180	6.60	......	179
....	1	2	.....	5	3	589	......	....	290	......	....	879	......	120	2.27	......	180
....	1	1	.....	3	2	....	168	....	211	......	72	451	......	O.H.	1.54	......	181
2	3	1	2	10	4	708	......	....	200	1,769	10	2,687	1,069	O.H.	4.78	......	182
2	1	1	1	7	3	600	......	....	134	260	30	1,024	123	O.H.	2.45	......	183
1	1	1	1	5	2	....	......	....	227	337	....	564	112	90	1.30	......	184
1	1	1	2	7	4	350	......	....	264	602	35	1,251	202	120	2.71	......	185
....	1	1	2	6	4	950	......	....	158	516	....	1,624	......	O.H.	4.70	......	186
....	1	2	2	7	4	414	......	....	209	517	....	1,140	......	O.H.	2.56	......	187
3	...	1	5	11	6	518	......	....	219	856	9	1,602	184	O.H.	2.42	......	188
....	...	1	1	4	3	600	......	....	357	112	96	1,165	......	O.H.	3.88	......	189
....	1	1	.....	4	2	750	......	....	288	......	93	1,131	......	O.H.	4.05	......	190
....	1	2	1	6	2	735	......	....	210	......	52	997	......	O.H.	2.52	......	191
....	...	1	4	7	5	....	......	....	70	1,213	240	1,523	278	O.H.	3.99	......	192
3	1	1	1	8	3	330	......	....	248	460	27	1,065	......	O.H.	1.96	......	193
1	1	1	2	7	3	381	......	....	88	29	....	498	13	180	1.13	......	194

[b] Not reported.

TABLE XXVII.—CHILDREN UNDER 16 YEARS OF AGE AT WORK: AGE, DITION OF THE CHILD AND THE FAMILY, IN

WEST VIRGINIA—Concluded.

Family number.	The father.		The child.								Membership of family.	
											Occupation or condition of—	
	Race and nativity.	Yrs. in U. S.	Sex.	Age.	Occupation or industry.	Days worked past year.	Earnings past year.	Mos. since beginning work.	Can read and write.	Mos. school attendance.	Father.	Mother.
195	Slav, F......	25	M.	15	Greaser, stamp works.	200	$148	24	Yes.	63	Miner......	Home
			F.	15	Touch-up...	300	180	24	Yes.	54		
196	American...	.....	F.	15	Cementer...	250	225	36	Yes.	40	Laborer....	Home
197	American...	.....	F.	15	Decorator...	250	195	30	Yes.	45	Presser.....	Home
198	American...	.....	F.	15	Decorator...	240	170	12	Yes.	72	Dead.......	Home
199	American...	.....	F.	15	Cutter-off...	275	275	12	Yes.	80	Miner......	Home
200	American...	.....	F.	15	Selector.....	92	47	7	Yes.	46	Laborer....	Home
201	American...	.....	F.	15	Wiper.......	250	210	12	Yes.	48	Farmer....	Home
202	American...	.....	F.	15	Wrapper....	234	117	15	Yes.	48	Miner......	Home
203	American...	.....	F.	15	Decorator...	168	126	24	Yes.	63	Engineer...	Home
204	American...	.....	F.	15	Decorator, pottery.	72	43	7	Yes.	72	Incapac....	Home
205	American...	.....	F.	15	Selector.....	180	120	8	Yes.	30	Laborer....	Home
206	American...	....	F.	15	Wiper.......	216	185	9	Yes.	56	Deserter...	Home
			F.	15	Wrapper....	292	175	12	Yes.	50		
207	German, N..	.....	F.	15	Needle etcher.	96	64	4	Yes.	56	Cleaner....	Home
208	Irish, N.....	.....	F.	15	Washer.....	150	117	18	Yes.	55	Leersman..	Home
209	German, F..	37	F.	15	Wrapper....	192	104	9	Yes.	54	Dead.......	Home
210	German, F..	18	F.	15	Wiper.......	192	314	12	Yes.	72	Dead.......	Home
211	German, F..	33	F.	15	Folder, box factory.	192	96	8	Yes.	72	Laborer....	Home
212	English, F..	15	F.	15	Needle etcher.	78	54	3	Yes.	80	Engraver..	Home

MARYLAND.

Family number.	Race and nativity.	Yrs. in U. S.	Sex.	Age.	Occupation or industry.	Days worked past year.	Earnings past year.	Mos. since beginning work.	Can read and write.	Mos. school attendance.	Father.	Mother.
1	German, N..	....	M.	9	Snap-up....	103	$40	4	No..	25	Blower.....	Home
			M.	12	Carry-in....	62	33	3	Yes.	25		
			F.	15	Labeler, bakery.	12	8	1	Yes.	60		
2	Amer., col..	....	M.	10	Snap-up....	12	5	1	Yes.	30	Stevedore..	Home
			M.	15	Snap-up....	240	117	24	Yes.	66		
3	German, N..	.....	M.	12	Snap-up....	128	50	5	Yes.	60	Box maker.	Work
4	American...	....	M.	12	Snap-up....	51	19	2	No..	30	Laborer....	Work
			M.	13	Mold boy...	240	140	17	No..	10		
5	English, N..	....	M.	12	Snap-up....	179	71	7	Yes.	50	Engineer...	Home
			M.	14	Helper, candy.	230	146	24	Yes.	40		
6	American...	.....	M.	13	Clean-off....	240	160	12	Yes.	50	Laborer....	Home
7	American...	.....	M.	13	Snap-up....	297	156	20	Yes.	55	Laborer....	Home
8	Amer., col..	.....	M.	13	Snap-up....	154	85	6	Yes.	48	Laborer....	Work
9	American...	.....	M.	13	Snap-up....	282	135	23	Yes.	54	Bricklayer.	Work
10	German, N..	.....	M.	13	Snap-up....	240	141	12	Yes.	60	Dead......	Home
11	German, N..	.....	M.	13	Clean-off....	205	115	8	Yes.	70	Laborer....	Home
12	German, F..	36	M.	13	Snap-up....	295	153	12	Yes.	60	Silver plat'r	Home
13	German, F..	57	M.	13	Clean-off....	240	186	39	Yes.	45	Painter....	Home
14	German, F..	24	M.	13	Snap-up....	240	140	11	Yes.	50	Laborer....	Home
15	German, F..	26	M.	13	Machine operator, buttons.	103	51	4	Yes.	52	Laborer....	Home
			M.	13	Snap-up....	295	109	12	Yes.	54		
16	English, F..	34	M.	13	Mold boy...	160	95	6	Yes.	34	Dead......	Home
17	German, F..	25	M.	13	Clean-off....	260	169	22	Yes.	40	Laborer....	Home
			F.	15	Machine operator, paper boxes.	300	200	24	Yes.	70		

[a] Including 1 other member.

OCCUPATION, AND EDUCATION OF THE CHILD, AND ECONOMIC CON-
DETAIL, FOR EACH STATE—Continued.

WEST VIRGINIA—Concluded.

Membership of family.						Income of family past year.						Total earnings and income past year.	Am't retained by children 16 years and over.	Rent past year.	Per capita weekly income of family less earnings of children.		Family number.
Children of ages—				Total.	Total wage earners.	Earnings of—					Other.						
Under 10.	10 to 13.	14 and 15.	16 and over.			Father.	Mother.	Children—							Under 16.	Under 14.	
								Under 14.	14 and 15.	16 and over.							
2	1	2	4	11	7	$585	......	....	$328	$1,980	....	$2,893	......	$120	$4.48	......	195
4	1	1	2	10	4	175	......	....	225	412	....	812	......	168	1.13	......	196
....	1	1	.....	4	2	600	......	....	195	....	$2	797	......	69	2.89	......	197
....	...	1	2	4	3	......	......	....	170	1,133	150	1,453	$613	96	6.17	......	198
2	2	1	1	8	3	375	......	....	275	481	25	1,156	......	72	2.12	......	199
1	1	1	4	9	6	390	......	....	47	1,109	....	1,546	731	O.H.	3.20	......	200
....	...	1	3	6	4	150	......	....	210	878	....	1,238	611	96	3.29	......	201
2	1	1	.....	6	2	526	......	....	117	....	120	763	......	72	2.07	......	202
1	2	1	.....	6	2	750	......	....	126	....	....	876	......	108	2.40	......	203
....	1	1	1	5	2	......	......	....	43	173	6	222	......	132	.69	......	204
2	1	1	1	7	3	252	......	....	120	180	....	552	......	144	1.19	......	205
1	1	2	1	6	3	......	......	....	360	1,200	....	1,560	960	96	3.85	......	206
1	1	1	.....	5	2	600	......	....	64	....	....	664	......	96	2.31	......	207
....	...	1	1	4	3	506	......	....	117	347	26	996	......	156	4.23	......	208
2	1	1	4	9	4	......	......	....	104	964	....	1,068	......	O.H.	2.06	......	209
1	1	1	3	7	4	......	......	....	314	530	72	916	50	O.H.	1.65	......	210
....	1	1	2	6	4	324	......	....	96	627	....	1,047	......	102	3.05	......	211
2	2	1	.....	7	2	720	......	....	54	....	....	774	......	180	1.98	......	212

MARYLAND.

4	1	1	1	9	5	$599	......	$73	$8	$25	....	$705	......	$144	$1.33	$1.35	1
3	1	1	2	9	5	264	......	5	117	610	$24	1,020	$324	144	1.92	2.17	2
2	1	....	1	6	4	375	$26	50	.....	350	4	805	94	114	2.42	2.42	3
6	2	....	2	12	6	340	64	159	.....	186	6	755	......	120	.96	.96	4
3	2	1	.....	8	3	390	......	71	146	....	....	607	......	96	.94	1.29	5
8	2	....	.....	12	2	300	......	160	.....	....	....	460	......	96	.48	.48	6
4	2	....	2	10	4	416	......	156	.....	564	4	1,140	180	144	1.89	1.89	7
4	2	....	.....	8	3	307	52	85	.....	....	6	450	......	120	.88	.88	8
....	2	....	.....	4	3	616	78	135	.....	....	20	849	......	O.H.	3.43	3.43	9
....	1	....	2	4	3	......	......	141	.....	708	....	849	188	168	3.40	3.40	10
4	1	....	1	8	3	308	......	115	.....	114	5	542	......	120	1.03	1.03	11
....	1	....	.....	[a]4	2	624	......	153	.....	....	10	787	......	O.H.	3.05	3.05	12
....	1	....	4	7	5	292	......	186	.....	808	12	1,298	370	120	3.05	3.05	13
3	2	....	1	8	3	400	......	140	.....	120	....	660	......	54	1.25	1.25	14
2	2	1	4	11	7	436	......	160	.....	852	....	1,448	333	O.H.	2.25	2.25	15
1	1	....	4	7	4	......	......	95	.....	332	26	453	49	120	.98	.98	16
5	1	1	4	[a]14	6	294	......	169	200	484	80	1,227	......	O.H.	1.18	1.45	17

TABLE XXVII.—CHILDREN UNDER 16 YEARS OF AGE AT WORK: AGE, DITION OF THE CHILD AND THE FAMILY, IN

MARYLAND—Concluded.

Family number.	The father.		The child.								Membership of family.	
											Occupation or condition of—	
	Race and nativity.	Yrs. in U. S.	Sex.	Age.	Occupation or industry.	Days worked past year.	Earnings past year.	Mos. since beginning work.	Can read and write.	Mos. school attendance.	Father.	Mother.
18	American		M.	14	Clean-off	243	$160	36	Yes.	45	Deserter	Home
19	American		M.	14	Snap-up	237	100	11	Yes.	62	Laborer	Home
20	American		M.	14	Mold boy	255	168	22	Yes.	50	Laborer	Home
21	American		M.	14	Snap-up	254	111	10	Yes.	60	Laborer	Home
22	American		M.	14	Snap-up	243	154	36	Yes.	45	Fireman	Home
			M.	14	Snap-up	243	154	24	Yes.	56		
23	German, N		M.	14	Snap-up	282	148	24	Yes.	60	Shoemaker.	Work
24	German, N		M.	14	Mold boy	260	169	36	Yes.	20	Laborer	Home
25	German, N		M.	14	Carry-in	307	163	12	Yes.	60	Laborer	Home
26	German, N		M.	14	Snap-up	231	95	15	Yes.	54	Janitor	Home
27	German, N		M.	14	Carry-in	240	140	29	Yes.	40	Laborer	Home
28	German, N		M.	14	Carry-in	251	149	10	Yes.	54	Laborer	Home
29	German, N		M.	14	Snap-up	132	59	6	Yes.	45	Cigar maker	Home
30	English, N		M.	14	Clean-off	260	180	12	Yes.	63	Flagman	Home
31	German, F	26	M.	14	Snap-up	236	198	12	Yes.	70	Sawyer	Work
32	German, F	20	M.	14	Snap-up	240	101	24	Yes.	60	Enameler	Home
33	German, F	62	M.	14	Carry-in	257	137	29	Yes.	50	Shoemaker.	Home
34	German, F	25	M.	14	Carry-in	307	165	19	Yes.	54	Furnace man.	Home
35	American		F.	14	Cash girl, dept. store.	36	12	2	Yes.	75	Dead	Home
36	American		M.	15	Mold boy	240	150	10	Yes.	54	Huckster	Home
37	American		M.	15	Clean-off	292	184	44	Yes.	47	Brickmaker	Home
38	American		M.	15	Carry-in	260	169	72	Yes.	15	Dead	Home
39	Amer., col		M.	15	Mold boy	307	167	24	No.	56	Machine tender.	Work
40	Amer., col		M.	15	Carry-in	240	98	10	Yes.	27	Incapac	Work
41	German, N		M.	15	Carry-in	307	233	60	Yes.	30	Paper hanger.	Home
42	Irish, F	40	M.	15	Snap-up	260	180	12	Yes.	80	Laborer	Home
43	American		F.	15	Tie-on	260	138	18	Yes.	80	Dead	Home

VIRGINIA.

Family number.	Race and nativity.	Yrs. in U. S.	Sex.	Age.	Occupation or industry.	Days worked past year.	Earnings past year.	Mos. since beginning work.	Can read and write.	Mos. school attendance.	Father.	Mother.
1	Hebrew, F	20	M.	10	Carry-in	128	$64	5	Yes.	27	Fireman	Home
2	German, F	24	M.	10	Water boy	30	15	1	No.	18	Brewer	Home
			F.	14	Twister, silk	180	90	7	Yes.	45		
3	American		M.	10	Water boy	26	13	1	Yes.	27	Brakeman	Home
			M.	15	Stick-up	250	167	70	Yes.	42		
4	American		M.	10	Water boy	52	26	2	Yes.	27	Fireman	Home
			M.	15	Mold boy	240	240	12	Yes.	49		
5	American		M.	11	Carry-in	250	125	12	No.		Dead	Home
			M.	14	Snap-up	250	125	36	No.	3		
6	Amer., col		M.	11	Lunch carrier	307	24	12	No.		Laborer	Home
			M.	14	Carry-in	193	126	60	No.			
			M.	15	Carry-in	239	151	24	No.			
7	Amer., col		M.	12	Mold boy	181	43	14	No.	45	Elevator man.	Work
8	Amer., col		M.	12	Carry-over	95	41	11	Yes.	45	Brakeman	Home
9	American		M.	12	Water boy	250	125	34	Yes.	16	Car repairer	Dead
			M.	13	Water boy	250	125	46	Yes.	16		
10	American		M.	12	Stick-up	257	128	24	No.	9	Foreman	Home
			M.	13	Stick-up	257	128	26	Yes.	56		
			M.	15	Spare boy	180	105	36	Yes.	25		
11	American		M.	12	Stick-up	205	92	24	No.	12	Car repairer	Home
			M.	14	Stick-up	205	92	24	Yes.	34		
12	American		M.	13	Stick-up	275	138	34	Yes.	21	Laborer	Home
13	Irish, N		M.	13	Stick-up	250	125	13	Yes.	51	Tinner	Home
14	Amer., col		M.	13	Mold boy	149	134	19	Yes.	9	Deserter	Work
			M.	15	Stick-up	149	143	34	Yes.	28		

[a] Amount of life insurance received.

OCCUPATION, AND EDUCATION OF THE CHILD, AND ECONOMIC CONDETAIL, FOR EACH STATE—Continued.

MARYLAND—Concluded.

Membership of family.						Income of family past year.						Total earnings and income past year.	Am't retained by children 16 years and over.	Rent past year.	Per capita weekly income of family less earnings of children.		Family number.
Children of ages—				Total.	Total wage earners.	Earnings of—					Other.				Under 16.	Under 14.	
						Father.	Mother.	Children—									
Under 10.	10 to 13.	14 and 15.	16 and over.					Under 14.	14 and 15.	16 and over.							
....	...	1	1	3	2	......	......	....	$160	$200	$83	$443	$40	$96	$1.81	......	18
2	1	1	4	10	6	$144	......	....	100	949	154	1,347	244	120	2.40	......	19
1	...	1	2	6	4	306	......	....	168	253	......	727	......	132	1.79	......	20
2	...	1	2	7	4	282	......	....	111	330	......	723	......	120	1.68	......	21
....	...	2	.....	4	3	792	......	....	308	......	......	1,100	......	120	3.81	......	22
2	2	1	1	8	4	306	$115	....	148	234	......	803	......	132	1.57	......	23
2	1	1	1	7	3	227	......	....	169	207	15	618	......	72	1.23	......	24
1	...	1	1	5	3	480	......	....	163	143	9	795	......	108	2.43	......	25
3	2	1	.....	8	2	468	......	....	95	......	......	563	......	120	1.13	......	26
5	...	1	1	9	3	468	......	....	140	165	......	773	......	108	1.35	......	27
1	1	1	1	6	3	328	......	....	149	203	a 38	718	......	120	1.82	......	28
4	...	1	.....	7	2	428	......	....	59	......	5	492	......	108	1.19	......	29
2	1	1	1	7	3	420	......	....	180	207	......	807	......	O.H.	1.72	......	30
1	1	1	1	6	4	485	104	....	198	33	......	820	......	O.H.	1.99	......	31
....	2	1	3	8	5	800	......	....	101	629	......	1,530	163	180	3.44	......	32
....	...	1	2	5	3	282	......	....	139	276	3	700	......	O.H.	2.16	......	33
....	2	1	1	6	3	607	......	....	165	120	......	892	......	O.H.	2.33	......	34
1	1	1	2	6	3	......	......	....	12	436	......	448	44	96	1.40	......	35
1	1	1	.....	5	2	312	......	....	150	......	......	462	......	120	1.20	......	36
....	...	1	1	4	3	936	......	....	184	255	......	1,375	73	120	5.73	......	37
....	...	1	.....	2	1	......	......	....	169	......	130	299	......	36	1.25	......	38
2	1	1	1	7	4	154	102	....	167	26	38	487	......	108	.88	......	39
....	...	1	5	8	6	......	52	....	98	538	......	688	288	96	1.42	......	40
1	...	1	2	6	4	532	......	....	233	326	......	1,091	......	96	2.75	......	41
....	...	1	3	6	5	450	......	....	180	992	10	1,632	238	O.H.	4.65	......	42
....	1	1	1	4	2	......	......	....	138	276	10	424	120	O.H.	1.38	......	43

VIRGINIA.

2	1	....	.....	5	2	$624	......	$64	.....	......	$12	$700	......	$90	$2.45	$2.45	1
1	2	1	1	7	4	545	......	15	$90	$152	42	844	......	90	2.03	2.28	2
....	1	1	.....	4	3	642	......	13	167	......	......	822	......	O.H.	3.09	3.89	3
5	2	1	3	13	5	591	......	26	240	1,440	104	2,401	$940	90	3.16	3.51	4
....	1	1	3	6	5	......	......	125	125	716	......	966	......	72	2.29	2.70	5
3	1	2	.....	8	4	336	......	24	277	......	......	637	......	36	.81	1.47	6
1	1	....	.....	4	3	322	$127	43	.....	......	......	492	......	72	2.16	2.16	7
5	1	....	.....	8	2	403	......	41	.....	......	23	467	......	O.H.	1.02	1.02	8
1	2	....	2	6	4	500	......	250	.....	208	......	958	......	126	2.27	2.27	9
2	3	1	2	10	5	720	......	256	105	663	......	1,744	403	O.H.	2.66	2.86	10
3	2	1	1	9	3	463	......	92	92	......	48	695	......	66	1.09	1.29	11
1	2	....	1	6	3	346	......	138	.....	260	......	744	200	66	1.94	1.94	12
....	2	1	3	8	4	456	......	125	.....	788	......	1,369	482	O.H.	2.99	2.99	13
1	2	1	.....	5	3	......	96	134	143	......	......	373	......	72	.37	.92	14

TABLE XXVII.—CHILDREN UNDER 16 YEARS OF AGE AT WORK: AGE, DITION OF THE CHILD AND THE FAMILY, IN

VIRGINIA—Concluded.

Family number.	The father.		The child.								Membership of family.	
											Occupation or condition of—	
	Race and nativity.	Yrs. in U. S.	Sex.	Age.	Occupation or industry.	Days worked past year.	Earnings past year.	Mos. since beginning work.	Can read and write.	Mos. school attendance.	Father.	Mother.
15	American		M.	14	Stick-up	26	$13	12	Yes.	56	Carpenter	Home
16	American		M.	14	Carry-in	52	25	2	Yes.	49	Foreman	Home
17	American		M.	14	Stick-up	172	87	34	Yes.	36	Baker	Home
18	Amer., col		M.	14	Carry-in	277	145	22	Yes.	27	Sawyer	Work
19	Amer., col		M.	14	Carry-in	124	66	3	Yes.	54	Laborer	Work
20	Amer., col		M.	14	Stick-up	257	187	48	No.	6	Dead	Work
21	Amer., col		M.	14	Carry-in	248	158	72	Yes.	30	Dead	Work
22	Amer., col		M.	14	Carry-in	159	48	42	No.	6	Dead	Work
23	Amer., col		M	14	Stick-up	236	208	22	Yes.	36	Salesman	Work
			M.	15	Carry-in	211	147	22	No.	12		
24	Amer., col		M.	14	Carry-in	295	170	14	Yes.	45	Away	Work
			M.	15	Carry-in	140	152	30	Yes.	63		
25	American		M.	15	Carry-in	250	125	22	Yes.	66	Foreman	Work

TENNESSEE.

1	American		M.	12	Crack-off	180	$180	8	No.	6	Laborer	Home
			M.	14	Mold boy	240	264	36	No.	6		
2	American		M.	13	Stick-up	240	268	24	Yes.	45	Deserter	Home
3	American		M.	13	Carry-in	60	66	3	Yes.	50	Sawyer	Home
			M.	15	Carry-in	240	268	36	Yes.	40		
4	American		M.	14	Carry-in	240	216	12	Yes.	50	Dead	Home
5	American		M.	14	Stick-up	240	300	33	Yes.	15	Laborer	Home
6	American		M.	14	Carry-in	240	240	36	Yes.	20	Stonemason	Home
7	American		M.	14	Stick-up	240	264	36	Yes.	20	Dead	Home
8	American		M.	14	Carry-in	240	216	18	Yes.	17	Contractor	Home
			M.	15	Carry-in	240	216	18	Yes.	18		
9	American		M.	15	Mold boy	240	240	48	Yes.	60	Carpenter	Home

SOUTH CAROLINA.

1	American		M.	12	Water boy	17	$10	1	Yes.	54	Blower	Home
2	Amer., col		M.	12	Mold boy	214	169	24	No.	3	Laborer	Work
			M.	14	Mold boy	172	137	36	No.	9		
3	American		M.	13	Clean-off	204	178	9	Yes.	45	Conductor	Home
4	American		M.	13	Clean-off	214	196	36	Yes.	27	Merchant	Home
			M.	15	Clean-off	214	196	36	Yes.	49		
5	Amer., col		M.	14	Mold boy	214	161	24	No.		Dead	Work

GEORGIA.

1	Amer., col		M.	11	Carry-in, etc	43	$25	5	No.	15	Miner	Work
			M.	13	Carry-in, etc	77	46	7	No.	12		
2	American		M.	12	Carry-in, etc	92	78	4	Yes.	45	Dead	Home
			M.	14	Carry-in, etc	173	138	8	Yes.	63		
3	Amer., col		M.	13	Carry-in, etc	198	149	10	Yes.	30	Dead	Work
4	Amer., col		M.	13	Carry-in, etc	58	40	3	Yes.	54	Farmer	Work
5	American		M.	14	Carry-in, etc	47	34	14	Yes.	59	Blacksmith	Home
			M.	15	Carry-in, etc	270	337	14	Yes.	55		
6	Amer., col		M.	15	Carry-in. etc	24	11	1	Yes.	75	Cleaner and dyer.	Work

[a] Including 1 other member.

OCCUPATION, AND EDUCATION OF THE CHILD, AND ECONOMIC CON-DETAIL, FOR EACH STATE—Concluded.

VIRGINIA—Concluded.

Membership of family.						Income of family past year.						Total earnings and income past year.	Am't retained by children 16 years and over.	Rent past year.	Per capita weekly income of family less earnings of children.		Family number.
Children of ages—				Total.	Total wage earners.	Earnings of—					Other.				Under 16.	Under 14.	
Under 10.	10 to 13.	14 and 15.	16 and over.			Father.	Mother.	Children—									
								Under 14.	14 and 15.	16 and over.							
3	2	1	.....	8	2	$612	......	....	$13	......	....	$625	......	O.H.	$1.47	......	15
2	1	1	1	7	3	738	......	....	25	$480	$83	1,326	......	$60	3.57	......	16
2	1	1	.....	6	2	461	......	....	87	......	....	548	......	90	1.48	......	17
....	1	1	4	8	7	191	$115	....	145	656	....	1,107	$210	120	2.31	......	18
1	1	1	1	6	4	193	180	....	66	179	....	618	......	60	1.77	......	19
4	...	1	4	10	5	....	52	....	187	551	....	790	256	48	1.16	......	20
....	...	1	3	*a* 6	5	....	65	....	158	309	....	532	......	84	1.20	......	21
1	...	1	1	*a* 5	3	....	130	....	48	52	....	230	......	24	.70	......	22
1	1	2	1	7	4	171	51	....	355	180	30	787	......	48	1.19	......	23
....	1	2	1	*a* 6	4	....	114	....	322	62	43	541	......	96	.70	......	24
2	...	1	3	8	5	462	25	....	125	980	....	1,592	605	126	3.53	......	25

TENNESSEE.

3	2	1	2	10	5	$450	......	$180	$264	$600	$25	$1,519	$288	$120	$2.07	$2.58	1
....	1	....	2	4	3	....	......	268	.....	540	75	883	190	168	2.96	2.96	2
2	1	1	3	9	6	525	......	66	268	760	255	1,874	184	192	3.29	3.86	3
....	...	1	2	4	3	....	......	....	216	316	....	532	......	84	1.52	......	4
1	1	1	3	8	5	369	......	....	300	558	....	1,227	234	120	2.23	......	5
1	...	1	.....	4	2	900	......	....	240	......	....	1,140	......	96	4.33	......	6
1	3	1	2	8	3	....	......	....	264	600	25	889	......	96	1.50	......	7
2	1	2	1	8	4	672	......	....	432	300	8	1,412	118	90	2.36	......	8
....	1	1	2	6	4	600	......	....	240	440	....	1,280	......	O.H.	3.33	......	9

SOUTH CAROLINA.

3	1	....	.....	6	2	$1,225	......	$10	.....	......	....	$1,235	......	$180	$3.93	$3.93	1
3	1	1	1	8	4	205	$85	169	$137	......	$15	611	......	60	.73	1.06	2
1	2	....	1	6	3	250	......	178	.....	$316	21	765	$160	60	1.88	1.88	3
4	2	1	.....	9	3	488	......	196	196	......	....	880	......	120	1.04	1.46	4
....	1	1	1	4	3	....	102	....	161	193	18	474	155	60	1.50	......	5

GEORGIA.

1	2	1	2	8	6	$768	$100	$71	.....	$258	$18	$1,215	$154	$24	$2.58	$2.75	1
....	1	1	1	4	3	....	......	78	$138	206	76	498	......	O.H.	1.36	2.02	2
....	1	....	1	3	3	....	52	149	.....	182	24	407	......	30	.70	1.65	3
....	2	1	1	6	4	200	39	40	.....	......	25	304	......	O.H.	.81	.85	4
3	1	2	.....	8	3	768	......	....	371	......	51	1,190	......	O.H.	1.97	......	5
....	...	1	1	4	4	312	65	....	11	13	8	409	......	O.H.	1.91	......	6

TABLE XXVIII.—SINGLE WOMEN AT WORK AND ECONOMIC CONDITION OF THEIR FAMILIES, IN DETAIL.

In this table is presented full information in detail for all single women 16 years of age and over at work, in regard to whom data were secured in the home. Most of these are typical women of the specified ages employed in the glass factories investigated. A few others, however, members of the same families but employed in other industries, are also included. The factory was the starting point of this investigation. There first was secured from the pay roll of the establishment a complete list of the woman and child employees and those male employees 16 years of age and over who worked in occupations where any women and children were also engaged. With this list were secured the occupation, sex, age, race, place of birth, and for a pay-roll period the hours worked and the actual earnings. The pay-roll period selected was, as a rule, the one as near as possible to the visit by the agent of the Bureau. Care was taken, however, that it should be a period when the establishment was working full time and approximately the normal number of employees were at work.

From the list of employees as taken from the pay roll the names of a certain number of typical woman and child employees of various ages were selected and visits made to the homes. There were secured upon schedules detailed information in regard to the individual workers and their families. In getting this information in the homes an endeavor was made to secure schedules representing all the children under 16 employed in the factories investigated, and also for one-third of the woman workers. In a few cases, however, establishments were investigated for the woman and child employees of which, on account of lack of time, no schedules were secured. A sufficient number of schedules were secured, however, to fully represent the home conditions of woman and child employees in the glass industry.

The information secured in the home enabled the agents to verify several of the items obtained in the factory, and to secure additional data, a part of which are shown in this table.

The basis of this table is a single woman 16 years of age or over at work, with her family. The women (with their families) are arranged in the order of age, beginning with those of 16. The older sisters, if any are at work, follow in the order of age. The facts given for each woman and family relate to the father, the woman, the membership of the family, and the income of the family during the past year. Beginning with the second column of the table there is given for the father the race and whether native or foreign born. This is followed in the next column by the number of years in the United States in the cases of foreign born, or, if the father was dead, the number of years since he came to the United

States. For the woman the information given in order is the age, the occupation, the industry if other than the glass industry, the reported number of days worked, and the reported earnings during the past year, the years since beginning work, whether the woman could read and write any language, and the months of school attendance. The days worked and the earnings as given here are as secured in the home by careful questioning of members of the family. With a knowledge of the occupation, the age, the usual earnings of the occupation, and the earnings of the individual during a recent period, the employee was asked to give the agent estimates of the days worked during the past year and the earnings. Great care was taken in questioning to see that due allowance was made for changes in rates of wages during the year, for time lost either by sickness, irregularity of the employees, or a reduction of time or of the force in the establishment. As a result of this careful questioning reports were secured as accurate probably as it is possible to secure in the absence of detailed records. They are, however, necessarily only approximate, sometimes with a considerable error in the case of the individual, but probably very close to the facts on the average. The probability of error in these figures is discussed in detail on page 508.

Under the membership of the family are given the occupation or condition of the father, a statement of the condition of the mother, whether at home, at work as a wage-earner, or dead, the number of children of classified ages living in the family, the total membership of the family, and the total wage-earners in the family. The total membership of the family and the total wage-earners include only the members of the natural family, boarders and lodgers, if any, not being included. Under income of family during the past year are given earnings of the father, the mother, the children under 14 years of age, the children 14 and 15, the children 16 and over, the income from other sources, and the total of earnings and income. In addition, the amount of earnings retained by the children 16 years of age and over (that is, not turned into the family fund) is also given. The income from other sources includes all income other than earnings. The income from the keeping of boarders and lodgers is an important item. The amount entered as income from boarders and lodgers is not the gross amount paid in by boarders and lodgers, but one-half of that amount in the case of lodgers and one-fifth in the case of boarders or boarders and lodgers, which is estimated to be a fair average of the profit in such cases. In some cases there was income from property owned. Other sources of income were garden, poultry, etc. In rare cases there was income from the sale of property or from insurance. In such cases the source and amount of income has always been noted. In regard to these items of income and earnings, it should be stated that they are only approximate, and the explanation made in regard to the earnings of the women applies here as well.

Following the amount of earnings retained by children 16 years of age and over during the past year is a column showing the amount expended for rent during the past year. In those cases where the family owned its own home this fact is indicated by the abbreviation O. H. The table concludes with a column showing the per capita weekly income of the family.

In order that the form of the table may be clearly understood the following example is given, using the first family in the part of the table relating to New York: In the first line of the table the first woman given was 16 years of age, the daughter of a German father born in this country, as indicated by the letter "N" following the name of the race. The occupation of the woman was as a washer in a glass factory. During the past year she reported 294 days worked and earnings of $245. It had been one year since she began work. She

TABLE XXVIII.—SINGLE WOMEN 16 YEARS OF AGE AND OVER AT WORK: CONDITION OF THE WOMAN AND THE

NEW YORK.

Family number.	The father.		The single woman.							Membership of family.	
										Occupation or condition of—	
	Race and nativity.	Years in U. S.	Age.	Occupation or industry.	Days worked past year.	Earnings past year.	Years since beginning work.	Can read and write.	Mos. school attendance.	Father.	Mother.
1	German, N.	......	16	Washer	294	$245	1	Yes.	90	Butcher	Work.
2	German, F.	24	16	Coverer, demijohn.	156	91	$\frac{10}{12}$	Yes.	92	Laborer	Home.
3	German, F.	19	16	Transferer	276	230	$2\frac{6}{12}$	Yes.	86	Driver	Home.
4	Italian, F.	25	16	Stenographer	120	160	$\frac{6}{12}$	Yes.	80	Dead	Home.
5	Polish, F.	19	16	Coverer, demijohn.	216	216	1	Yes.	81	Carpenter	Home.
6	Polish, F.	17	16	Saleswoman, shoes.	300	250	2	Yes.	72	Liquor man, tannery.	Home.
7	German, F.	20	16	Waxer	192	128	$\frac{9}{12}$	Yes.	80	Driver	Home.
			18	Transferer	230	233	3	Yes.	80		
8	Irish, F.	28	16	Coverer, demijohn.	156	91	$\frac{6}{12}$	Yes.	90	Laborer	Home.
			22	Coverer, demijohn.	156	91	$\frac{6}{12}$	Yes	95		
9	French, F.	17	17	Saleswoman, shoes.	300	346	2	Yes.	72	Laborer	Home.
10	German, F.	20	17	Coverer, demijohn.	150	76	$\frac{11}{12}$	Yes.	90	Laborer	Home.
11	Irish, F.	26	17	Transferer	255	150	2	Yes.	60	Packer	Home.
12	Polish, F.	17	17	Coverer, demijohn.	264	154	3	Yes.	72	Laborer	Home.
13	English, F.	22	17	Cleaner, bookbinding.	248	165	$1\frac{6}{12}$	Yes.	80	Blacksmith	Home.
14	Slovak, F.	25	17	Carder, jute	162	130	3	Yes.	40	Laborer	Home.
15	Polish, F.	20	17	Saleswoman, shoes.	312	208	2	Yes.	90	Galvanizer	Home.
			18	Coverer, demijohn.	240	216	3	Yes.	81		
16	Irish, N.	......	17	Coverer, demijohn.	192	192	$1\frac{5}{12}$	Yes.	81	Shipper	Home.
			19	Coverer, demijohn.	192	192	$1\frac{3}{12}$	Yes.	90		

[a] Payment received on house sold.

was able to read and write and had attended school ninety months. There were no other single women 16 years of age or over at work from the membership of this family, or the facts would be shown in the next line of the table. From the membership of the family it appears that the father was a butcher and that the mother was at work. There was one child in each of the groups, under 10, 10 to 13, 14 and 15, 16 and over, the total membership of the family being 6 and the number of wage-earners 3. As to income and earnings during the past year, the table shows that the father reported earnings of $390, the mother $400, and children 16 and over $245. There was $60 income from other sources, making a total of income and earnings of $1,095, the equivalent of a per capita weekly income of $3.51. Nothing was paid for rent, as the family owned its own home. The facts for each of the other single women and their families may be seen from a study of this table, following out the items in the same way as here shown.

AGE, OCCUPATION, AND EDUCATION OF THE WOMAN, AND ECONOMIC FAMILY, IN DETAIL, FOR EACH STATE.

NEW YORK.

Membership of family.						Income of family past year.						Total earnings and income past year.	Am't retained by children 16 and over.	Rent past year.	Per capita weekly income of family.	Family number.
Children of ages—				Total.	Total wage earners.	Earnings of—					Other.					
						Father.	Mother.	Children—								
Under 10.	10 to 13.	14 and 15.	16 and over.					Under 14.	14 and 15.	16 and over.						
1	1	1	1	6	3	$390	$400	......	......	$245	$60	$1,095	......	O.H.	$3.51	1
....	1	....	3	6	4	627	......	......	......	991	a 50	1,668	$540	O.H.	5.35	2
1	1	....	1	5	2	513	......	......	......	230	......	743	......	$102	2.86	3
....	....	1	2	4	3	......	......	......	$88	1,080	......	1,168	......	120	5.62	4
1	....	1	1	5	3	360	......	......	144	216	......	720	......	O.H.	2.77	5
2	1	1	2	8	4	480	......	......	64	730	......	1,274	......	84	3.06	6
2	....	1	3	8	4	256	......	......	......	541	......	797	......	144	1.92	7
2	2	1	2	9	3	508	......	......	......	182	......	690	39	96	1.47	8
3	3	1	2	11	3	624	......	......	198	346	50	1,218	173	144	2.13	9
....	....	....	1	3	2	492	......	......	......	76	......	568	......	O.H.	3.64	10
3	2	....	2	9	3	510	......	......	......	630	72	1,212	120	168	2.59	11
....	....	1	1	4	3	432	......	......	220	154	60	866	......	O.H.	4.16	12
....	....	1	1	4	3	1,077	......	......	104	165	......	1,346	......	180	6.47	13
....	2	1	3	8	4	219	......	......	140	480	24	863	......	O.H.	2.07	14
3	3	1	2	11	4	367	......	......	119	424	......	910	......	O.H.	1.59	15
....	1	1	2	6	3	455	......	......	......	384	......	839	......	108	2.69	16

TABLE XXVIII.—SINGLE WOMEN 16 YEARS OF AGE AND OVER AT WORK: CONDITION OF THE WOMAN AND THE FAM

NEW YORK—Concluded.

Family number.	The father.		The single woman.							Membership of family.	
										Occupation or condition of—	
	Race and nativity.	Years in U. S.	Age.	Occupation or industry.	Days worked past year.	Earnings past year.	Years since beginning work.	Can read and write.	Mos. school attendance.	Father.	Mother.
17	American	......	17	Coverer, demijohn.	240	$190	$1\frac{1}{12}$	Yes.	90	Driver	Home.
			19	Saleswoman, hardware.	300	200	3	Yes.	87		
			21	Coverer, demijohn.	264	214	$1\frac{6}{12}$	Yes.	99		
18	Irish, F	35	17	Coverer, demijohn.	264	154	$1\frac{5}{12}$	Yes.	81	Dead	Home.
			20	Coverer, demijohn.	198	182	1	Yes.	90		
19	American	......	17	Coverer, demijohn.	192	160	$1\frac{5}{12}$	Yes.	81	Deserter	Home.
			20	Stemmer, pipes	312	195	3	Yes.	70		
			21	Coverer, demijohn.	192	160	$5\frac{5}{12}$	Yes.	72		
20	German, F	24	17	Bookkeeper, dep't store.	216	312	2	Yes.	90	Dead	Home.
			23	Seamstress	200	300	9	Yes.	75		
21	American	......	18	Smoother, cut glass.	294	221	2	Yes.	80	Cutter	Home.
22	American	......	18	Washer	280	233	$1\frac{6}{12}$	Yes.	60	Dead	Work.
23	Irish, N	......	18	Coverer, demijohn.	156	130	$1\frac{4}{12}$	Yes.	95	Buffer	Home.
24	Irish, F	29	18	Coverer, demijohn.	264	220	$1\frac{1}{12}$	Yes.	90	Fireman	Home.
25	Slovak, F	24	18	Packer, pencils.	295	220	2	Yes.	50	Gas maker	Home.
26	German, F	(b)	18	Coverer, demijohn.	164	168	$1\frac{10}{12}$	Yes.	85	Cabinet maker.	Home.
			19	Domestic	156	78	$\frac{6}{12}$	Yes.	64		
27	Irish, F	26	18	Coverer, demijohn.	264	264	$1\frac{4}{12}$	Yes.	92	Pump man	Home.
			19	Coverer, demijohn.	248	248	$1\frac{2}{12}$	Yes.	90		
28	Irish, F	30	18	Wrapper	276	348	$3\frac{6}{12}$	Yes.	70	Carpenter	Home.
			20	Folder, bookbinding.	229	312	5	Yes.	63		
29	German, F.	35	18	Saleswoman, shoes.	288	240	4	Yes.	75	Carpenter	Home.
			21	Coverer, demijohn.	246	176	7	Yes.	80		
30	German, F	48	18	Vest maker	156	182	3	Yes.	78	Dead	Home.
			23	Vest maker	144	192	7	Yes.	80		
			25	Vest maker	136	182	10	Yes.	75		
31	American	......	19	Smoother, cut glass.	294	245	4	Yes.	70	Dead	Home.
32	German, N	......	19	Sewer, furs	135	196	4	Yes.	80	Buttonhole maker.	Home.
33	German, F	21	19	Veneerer, shoes.	192	124	$\frac{8}{12}$	Yes.	80	Dead	Home.
34	Italian, F	15	19	Baster, clothing.	156	75	5	Yes.	75	Laborer	Work.
35	Slav, F	28	19	Coverer, demijohn.	264	264	$2\frac{6}{12}$	Yes.	90	Farmer	Home.
36	English, F	10	19	Washer	294	245	4	Yes.	65	Laborer	Home.
			21	Inspector	294	245	5	Yes.	80		
37	Irish, F	25	19	Shipping clerk.	294	270	4	Yes.	75	Fireman	Home.
			21	Labeler	294	245	5	Yes.	80		
38	Irish, F	40	19	Coverer, demijohn.	216	200	1	Yes.	81	Janitor	Home.
			24	Stripper, tobacco.	216	180	9	Yes.	87		
39	American	......	20	Bookbinding	231	281	6	Yes.	72	Laborer	Home.
			32	Cutter, wire goods.	307	256	18	Yes.	75		
40	German, F	25	23	Wrapper	294	294	9	Yes.	68	Laborer	Home.
41	Irish, N	......	25	Shipping clerk.	294	367	10	Yes.	80	Contractor	Home.
42	Irish, F	45	28	Transferer	158	202	12	Yes.	60	Dead	Work.

[a] Including 1 other member.

AGE, OCCUPATION, AND EDUCATION OF THE WOMAN, AND ECONOMIC ILY, IN DETAIL, FOR EACH STATE—Continued.

NEW YORK—Concluded.

Membership of family.						Income of family past year.						Total earnings and income past year.	Am't retained by children 16 and over.	Rent past year.	Per capita weekly income of family.	Family number.
Children of ages—				Total.	Total wage earners.	Earnings of—					Other.					
						Father.	Mother.	Children—								
Under 10.	10 to 13.	14 and 15.	16 and over.					Under 14.	14 and 15.	16 and over.						
....	1	1	3	7	4	$936	....	....	....	$604	....	$1,540	$100	$144	$4.23	17
....	....	....	3	4	3	....	....	....	....	836	....	836	....	O.H.	4.02	18
....	....	1	4	6	5	....	....	....	$160	980	....	1,140	....	24	3.65	19
....	....	1	3	5	4	....	....	....	15	1,200	....	1,215	....	156	4.67	20
1	....	....	1	[a]5	2	828	....	....	....	221	....	1,049	....	144	4.03	21
....	....	....	1	2	2	....	$400	....	....	233	....	633	....	84	6.09	22
1	2	1	2	8	3	816	....	....	....	230	$49	1,095	....	96	2.63	23
1	1	....	2	6	2	750	....	....	....	220	125	1,095	....	O.H.	3.51	24
1	....	1	2	6	4	459	....	....	16	431	....	906	....	132	2.90	25
1	....	2	2	7	5	378	....	....	216	246	198	1,038	....	O.H.	2.85	26
....	1	1	6	10	5	1,250	....	....	....	1,312	....	2,562	340	O.H.	4.93	27
....	1	1	3	7	5	306	....	....	164	1,170	288	1,928	....	O.H.	5.30	28
....	1	1	2	6	4	618	....	....	54	416	192	1,280	144	O.H.	4.10	29
....	1	1	4	7	5	....	....	....	240	1,296	....	1,536	532	144	4.22	30
....	....	....	1	2	1	....	....	....	....	245	....	245	....	84	2.36	31
2	1	1	2	8	4	440	....	....	27	466	....	933	....	108	2.24	32
....	1	2	2	6	3	....	....	....	208	343	21	572	....	O.H.	1.83	33
....	2	1	1	6	5	250	125	$52	16	75	....	518	....	132	1.66	34
1	1	2	2	8	4	200	....	....	70	696	....	966	....	O.H.	2.32	35
....	1	1	3	7	4	480	....	....	....	998	83	1,561	530	O.H.	4.29	36
1	1	1	3	8	4	441	....	....	....	1,495	....	1,936	1,079	O.H.	4.65	37
....	1	....	5	8	5	520	....	....	....	728	....	1,248	120	O.H.	3.00	38
....	1	1	3	7	5	247	....	....	128	1,050	....	1,425	257	144	3.91	39
....	1	1	2	6	4	448	....	....	150	544	....	1,142	258	O.H.	3.66	40
....	....	1	4	7	4	1,040	....	....	....	1,612	....	2,652	1,040	120	7.29	41
....	....	....	1	2	2	....	15	....	....	202	....	217	....	96	2.09	42

[b] Not reported.

TABLE XXVIII.—SINGLE WOMEN 16 YEARS OF AGE AND OVER AT WORK: CONDITION OF THE WOMAN AND THE FAM

NEW JERSEY.

Family number.	The father.		The single woman.							Membership of family.	
										Occupation or condition of—	
	Race and nativity.	Years in U.S.	Age.	Occupation or industry.	Days worked past year.	Earnings past year.	Years since beginning work.	Can read and write.	Mos. school attendance.	Father.	Mother.
1	American		16	Tie-on	240	$168	2	Yes.	63	Lamp worker.	Home.
2	American		16	Marker, bleachery.	144	120	$1\frac{10}{12}$	Yes.	54	Deserter	Home.
3	American		16	Spinner, cotton	120	84	2	Yes.	45	Laborer	Home.
4	German, F.	27	16	Sorter	225	185	3	Yes.	45	Farmer	Home.
5	American		16	Spinner, cotton	240	200	5	Yes.	36	Laborer	Home.
			17	Spinner, cotton	240	200	5	Yes.	27		
6	American		16	Sorter	100	70	2	Yes.	60	Engineer	Home.
			17	Sorter	175	120	2	Yes.	67		
			18	Sorter	300	164	4	Yes.	60		
7	American		16	Inspector	228	160	2	Yes.	72	Laborer	Home.
			20	Inspector	240	168	3	Yes.	72		
8	Irish, F.	25	16	Doffer, cotton	240	180	2	Yes.	45	Gateman	Home.
			20	Spooler, cotton	240	240	6	Yes.	45		
9	American		17	Stemmer, canning factory.	200	100	4	Yes.	50	Furnace man.	Work.
10	American		17	Stopperer	216	162	$\frac{9}{12}$	Yes.	54	Packer	Home.
11	American		17	Folder, bleachery.	264	198	2	Yes.	72	Leersman	Home.
12	American		17	Sorter	240	280	4	Yes.	63	Shearer	Home.
13	Dutch, N.		17	Washer	240	230	3	Yes.	63	Laborer	Home.
14	English, F.	24	17	Boxer, electric supplies.	144	175	$1\frac{8}{12}$	Yes.	63	Shearer	Home.
15	German, F.	25	17	Carder, cotton	240	240	3	Yes.	72	Laborer	Home.
16	German, F.	30	17	Stopperer	225	238	4	Yes.	50	Yard hand	Home.
17	German, F.	28	17	Washer	240	180	4	Yes.	63	Laborer	Home.
18	Italian, F.	20	17	Sewer, shirts	250	187	$3\frac{6}{12}$	Yes.	40	Farmer	Home.
19	Polish, F.	21	17	Clerk, store	264	176	4	Yes.	63	Laborer	Home.
20	American		17	Machine operator, wrappers.	216	162	2	Yes.	72	Shearer's helper.	Home.
			19	Grinder	192	208	2	Yes.	72		
21	American		17	Packer	210	174	2	Yes.	60	Presser	Home.
			20	Packer	225	187	4	Yes.	65		
22	American		17	Carder, cotton	276	392	4	Yes.	72	Packer	Home.
			20	Carder, cotton	276	490	6	Yes.	54		
			22	Carder, cotton	276	392	$7\frac{6}{12}$	Yes.	54		
23	American		17	Marker, bleachery.	240	200	2	Yes.	81	Blower	Home.
			30	Washer	144	144	13	Yes.	90		
24	American		18	Stopperer	216	180	6	Yes.	54	Shearer	Home.
25	American		18	Stopperer	96	80	$\frac{5}{12}$	Yes.	90	Yard hand	Home.
26	American		18	Spinner, cotton.	240	180	2	Yes.	63	Laborer	Home.
27	American		18	Stopperer	216	198	3	Yes.	72	Blower	Home.
28	American		18	Selector	240	200	2	Yes.	72	Blower's helper	Home.
29	American		18	Teacher	100	185	$\frac{5}{12}$	Yes.	108	Grinder	Home.
30	American		18	Drawer-in, cotton.	102	119	7	Yes.	45	Dead	Work.
31	German, N.		18	Packer	250	208	4	Yes.	63	Dead	Home.
32	Irish, N.		18	Carton maker	240	240	$4\frac{2}{12}$	Yes.	63	Laborer	Home.
33	English, F.	30	18	Reeler, cotton	232	232	$4\frac{4}{12}$	Yes.	63	Laborer	Home.
34	German, F.	22	18	Canned goods	75	75	2	Yes.	65	Engineer	Home.
35	Italian, F.	20	18	Sewer, wrappers	275	206	2	Yes.	55	Farmer	Home.
36	German, N.		18	Spinner, cotton.	290	305	4	Yes.	63	Laborer	Home.
			22	Spinner, cotton.	290	348	8	Yes.	63		
37	American		18	Bookkeeper, lumber	300	300	$1\frac{6}{12}$	Yes.	99	Dead	Home.
			24	Stemmer, cigars	250	208	7	Yes.	99		
			25	Hydrometer maker	250	271	9	Yes.	99		
			25	Labeler	250	250	14	Yes.	90		
38	German, F.	27	18	Weaver, cotton.	264	308	4	Yes.	54	Dead	Home.
			25	Weaver, cotton.	240	320	12	Yes.	30		

[a] Including 1 other member.

AGE, OCCUPATION, AND EDUCATION OF THE WOMAN, AND ECONOMIC ILY, IN DETAIL, FOR EACH STATE—Continued.

NEW JERSEY.

Membership of family.						Income of family past year.						Total earnings and income past year.	Am't retained by children 16 and over.	Rent past year.	Per capita weekly income of family.	Family number.
Children of ages—				Total.	Total wage earners.	Earnings of—					Other.					
Under 10.	10 to 13.	14 and 15.	16 and over			Father.	Mother.	Children—								
								Under 14.	14 and 15.	16 and over.						
4	1	....	2	9	3	$960	......	......	......	$408	....	$1,368	....	$114	$2.92	1
1	2	1	1	6	2	....	......	......	$116	120	....	236	....	72	.76	2
1	1	1	1	6	3	375	......	......	204	84	....	663	....	60	2.13	3
1	....	1	1	5	3	300	......	......	185	185	$85	755	....	O.H.	2.90	4
....	2	1	5	10	6	360	......	......	162	928	....	1,450	....	O.H.	2.79	5
....	....	....	3	5	4	780	......	......	......	354	33	1,167	$174	120	4.49	6
1	....	....	4	7	5	60	......	......	......	1,948	....	2,008	....	O.H.	5.53	7
1	2	....	2	7	4	536	......	$108	......	420	....	1,064	....	96	2.92	8
4	1	1	1	9	4	485	$40	......	162	100	10	797	....	90	1.70	9
1	2	1	3	9	4	520	......	......	......	2,022	....	2,542	1,236	O.H.	5.43	10
1	1	1	2	a 8	4	360	......	......	216	396	....	972	....	120	2.34	11
1	1	1	3	8	5	480	......	......	216	768	....	1,464	124	78	3.52	12
3	1	....	4	10	5	180	......	......	......	854	144	1,178	188	84	2.27	13
3	1	....	1	7	3	707	......	58	......	175	128	1,068	....	O.H.	2.93	14
3	2	1	2	10	4	324	......	......	180	780	....	1,284	....	O.H.	2.47	15
1	2	1	3	9	5	345	......	......	191	686	95	1,317	....	102	2.81	16
....	....	....	1	3	2	360	......	......	......	180	15	555	....	O.H.	3.56	17
....	....	1	1	4	3	300	......	......	135	187	20	642	....	O.H.	3.09	18
4	1	....	2	9	4	412	......	36	......	338	....	786	....	81	1.68	19
1	....	1	2	6	4	480	......	......	72	370	....	922	162	90	2.96	20
....	....	1	2	5	4	562	......	......	32	361	....	955	205	102	3.67	21
2	1	1	3	9	5	494	......	......	194	1,274	....	1,962	230	O.H.	4.19	22
....	....	2	3	7	5	1,440	......	......	204	584	....	2,228	....	192	6.12	23
....	2	....	6	10	6	420	......	......	......	1,521	....	1,941	543	72	3.73	24
1	1	2	2	8	6	252	......	62	216	248	24	802	....	108	1.93	25
3	1	1	2	9	4	456	......	......	194	516	35	1,201	....	O. H.	2.57	26
....	....	1	1	4	3	672	......	......	184	198	....	1,054	....	126	5.07	27
....	....	....	1	a 4	2	600	......	......	......	200	....	800	....	132	3.85	28
1	1	1	1	6	3	480	......	......	204	185	....	869	....	O.H.	2.79	29
2	....	2	1	6	4	....	490	......	399	119	....	1,008	....	84	3.23	30
1	1	....	3	6	3	....	......	......	......	1,037	....	1,037	....	72	3.32	31
....	1	1	4	8	5	375	......	......	90	720	12	1,197	118	84	2.88	32
....	1	1	2	6	3	396	......	......	162	232	....	790	76	84	2.53	33
2	2	1	2	9	4	648	......	......	93	245	55	1,041	....	84	2.22	34
3	1	2	1	9	4	960	......	......	236	206	120	1,522	....	O.H.	3.25	35
....	1	2	4	9	6	144	......	......	270	905	....	1,319	....	96	2.82	36
....	....	....	4	5	4	....	......	......	......	1,029	....	1,029	....	O.H.	3.96	37
....	....	1	4	6	5	....	......	......	32	1,271	....	1,303	164	O.H.	4.18	38

TABLE XXVIII.—SINGLE WOMEN 16 YEARS OF AGE AND OVER AT WORK: CONDITION OF THE WOMAN AND THE FAM

NEW JERSEY—Concluded.

Family number.	The father.		The single woman.							Membership of family.	
										Occupation or condition of—	
	Race and nativity.	Years in U. S.	Age.	Occupation or industry.	Days worked past year.	Earnings past year.	Years since beginning work.	Can read and write.	Mos. school attendance.	Father.	Mother.
39	American		19	Washer	275	$206	$1\frac{8}{12}$	Yes.	85	Packer	Home.
40	American		19	Washer	250	240	3	Yes.	90	Blower	Work.
41	American		19	Stopperer	240	220	$2\frac{6}{12}$	Yes.	80	Blower	Home.
42	Irish, N		19	Washer	232	213	2	Yes.	99	Grinder	Home.
43	American		20	Hydrometer maker	240	260	4	Yes.	108	Dead	Home.
44	American		20	Weaver, cotton.	264	396	5	Yes.	81	Yard hand	Home.
45	Irish, F	40	20	Labeler	248	248	2	Yes.	90	Foreman	Home.
46	German, F	30	20	Clerk, dry goods	294	294	2	Yes.	90	Manager	Home.
			22	Clerk, shoes	294	245	4	Yes.	108		
47	American		20	Stopperer	168	140	5	Yes.	63	Laborer	Home.
			23	Washer	240	240	6	Yes.	63		
48	American		21	Sewer, clothing.	300	250	2	Yes.	54	Teamster	Home.
49	American		21	Stopperer	25	22	6	Yes.	30	Dead	Home.
50	American		21	Grinder	225	156	5	Yes.	60	Laborer	Home.
51	German, N		21	Sorter	250	208	4	Yes.	72	Spare hand	Home.
52	German, F	27	21	Spinner, cotton.	144	166	7	Yes.	72	Laborer	Home.
53	Irish, F	36	21	Tie-on	216	198	5	Yes.	72	Blower	Home.
54	American		22	Wrapper	250	208	5	Yes.	63	Fish peddler	Home.
55	American		22	Selector	240	200	3	Yes.	45	Dead	Home.
56	American		22	Hydrometer maker	240	240	3	Yes.	108	Incapac	Home.
			31	Seamstress	240	240	14	Yes.	90		
			33	Saleswoman, company store.	294	490	16	Yes.	99		
57	American		23	Clerk, shoes	290	242	7	Yes.	90	Elevator man	Home.
58	English, F	23	24	Washer	228	207	10	Yes.	36	Laborer	Home.
59	American		25	Capper	250	208	8	Yes.	72	Laborer	Home.
60	American		25	Stopperer	300	225	10	Yes.	35	Yard hand	Home.
61	French, F	40	25	Weaver, cotton.	264	396	9	Yes.	45	Laborer	Home.
62	American		27	Stemmer, canned goods.	250	312	5	Yes.	65	Incapac	Work.
63	American		28	Stopperer	275	220	14	Yes.	60	Shoemaker	Work.

PENNSYLVANIA.

Family number.	Race and nativity.	Years in U. S.	Age.	Occupation or industry.	Days worked past year.	Earnings past year.	Years since beginning work.	Can read and write.	Mos. school attendance.	Father.	Mother.
1	American		16	Domestic	30	$10	1	Yes.	65	Plumber	Home.
2	American		16	Sorter	148	88	2	Yes.	28	Dead	Home.
3	American		16	Grinder	238	178	3	Yes.	18	Dead	Home.
4	American		16	Waxer	104	52	$\frac{4}{12}$	Yes.	72	Laborer	Home.
5	American		16	Decorator	216	162	3	Yes.	63	Laborer	Home.
6	American		16	Mold cleaner	144	96	$\frac{6}{12}$	Yes.	72	Presser	Home.
7	American		16	Sand blaster	154	83	8	Yes.	85	Salesman	Home.
8	American		16	Selector	270	147	$1\frac{3}{12}$	Yes.	72	Engineer	Home.
9	American		16	Domestic	62	16	$\frac{2}{12}$	Yes.	72	Mechanic	Home.
10	American		16	Domestic	60	30	$\frac{3}{12}$	Yes.	63	Incapac	Home.
11	American		16	Grinder	95	48	$\frac{4}{12}$	Yes.	38	Laborer	Home.
12	American		16	Dipper	245	122	2	Yes.	56	Boss, mine	Home.
13	American		16	Wiper	42	21	$\frac{2}{12}$	Yes.	18	Coke drawer	Home.
14	American		16	Selector	300	315	2	Yes.	48	Laborer	Home.
15	American		16	Selector	300	300	1	Yes.	72	Laborer	Home.
16	American		16	Selector	24	12	$\frac{1}{12}$	Yes.	90	Foreman	Home.
17	American		16	Grinder	175	131	$1\frac{6}{12}$	Yes.	60	Washer	Home.
18	American		16	Selector	300	250	3	Yes.	60	Dead	Home.
19	American		16	Domestic	150	50	$\frac{6}{12}$	Yes.	20	Leersman	Home.
20	English, N		16	Grinder	130	107	$\frac{11}{12}$	Yes.	64	Miner	Home.
21	French, N		16	Glazer	175	155	$\frac{8}{12}$	Yes.	20	Finisher	Home.
22	German, N		16	Selector	240	160	$1\frac{6}{12}$	Yes.	63	Packer	Home.
23	German, N		16	Washer	211	144	(*b*)	(*b*)	(*b*)	Laborer	Home.
24	German, N		16	Clerk	295	200	4	Yes.	60	Laborer	Home.

[a] Including $200 life insurance received.

AGE, OCCUPATION, AND EDUCATION OF THE WOMAN, AND ECONOMIC ILY, IN DETAIL, FOR EACH STATE—Continued.

NEW JERSEY—Concluded.

Membership of family.						Income of family past year.						Total earnings and income past year.	Am't retained by children 16 and over.	Rent past year.	Per capita weekly income of family.	Family number.
Children of ages—				Total.	Total wage earners.	Earnings of—					Other.					
Under 10.	10 to 13.	14 and 15.	16 and over.			Father.	Mother.	Children—								
								Under 14.	14 and 15.	16 and over.						
1	....	....	1	4	2	473	......	......	......	$206	....	$679	....	$102	$3.26	39
....	....	....	1	3	3	$2,000	$80	......	......	240	....	2,320	$136	132	14.87	40
....	....	....	2	4	2	294	......	......	......	220	....	514	....	120	2.47	41
6	1	1	1	11	2	830	......	......	......	213	....	1,043	....	168	1.82	42
....	....	....	1	2	1	....	......	......	......	260	$240	500	156	108	4.81	43
....	....	1	3	6	5	396	......	......	$200	1,356	....	1,952	784	90	6.26	44
3	1	....	2	8	3	1,250	......	......	......	320	....	1,570	72	O.H.	3.77	45
....	....	1	4	7	5	780	......	......	266	923	12	1,981	344	126	5.44	46
....	1	1	3	7	5	525	......	......	94	630	2	1,251	....	O.H.	3.44	47
2	1	2	2	9	5	465	......	......	314	502	....	1,281	346	108	2.74	48
....	....	....	1	2	1	....	......	......	......	22	50	72	....	O.H.	.69	49
2	1	....	2	7	3	300	......	......	......	343	....	643	56	60	1.77	50
....	1	1	2	6	3	540	......	......	156	208	68	972	....	84	3.12	51
1	....	1	3	7	5	360	......	......	180	634	8	1,182	140	102	3.25	52
1	1	1	3	8	5	360	......	......	88	618	....	1,066	....	90	2.56	53
....	....	....	2	4	3	252	......	......	......	446	....	698	....	84	3.36	54
....	....	....	3	4	3	....	......	......	......	913	96	1,009	297	114	4.85	55
....	....	....	3	5	3	....	......	......	......	970	....	970	....	144	3.73	56
1	1	....	3	7	5	375	......	......	......	1,242	....	1,797	636	108	4.94	57
2	1	....	3	8	4	375	......	......	......	675	....	1,050	....	84	2.52	58
2	1	1	3	9	5	735	......	......	30	748	....	1,513	222	132	3.23	59
....	....	....	1	3	2	420	......	......	......	225	5	650	121	O. H.	4.17	60
2	....	1	3	8	5	396	......	......	158	1,186	....	1,740	280	84	4.18	61
....	....	1	2	5	4	....	90	......	212	769	....	1,071	....	108	4.12	62
....	....	....	1	3	3	56	50	......	......	220	180	506	90	120	3.24	63

PENNSYLVANIA.

3	2	1	1	9	3	$300	......	......	$110	$10	$52	$472	....	O.H.	$1.01	1
....	1	....	1	3	1	....	......	......	......	88	35	123	....	$60	.79	2
5	3	1	1	11	2	....	......	......	100	178	[a] 265	543	....	O.H.	.95	3
1	1	1	2	7	3	378	......	......	154	52	20	604	....	60	1.66	4
....	....	....	1	3	2	519	......	......	......	162	....	681	....	O.H.	4.37	5
2	2	....	2	8	3	444	......	......	......	305	....	749	....	180	1.80	6
1	1	....	2	6	2	200	......	......	......	83	20	303	....	144	.97	7
....	....	....	3	5	4	662	......	......	......	759	....	1,421	$147	216	5.47	8
5	1	1	4	13	5	1,026	......	......	120	831	....	1,977	....	168	2.92	9
2	1	1	1	7	2	....	......	......	48	30	120	198	....	108	.54	10
2	1	1	1	7	2	195	......	......	......	48	....	243	....	72	.67	11
3	1	....	1	7	2	930	......	......	......	122	....	1,052	....	60	2.89	12
3	....	....	1	6	2	173	......	......	......	21	....	194	....	54	.62	13
1	1	1	1	6	2	460	......	......	......	315	....	775	290	84	2.48	14
1	....	....	1	4	2	397	......	......	......	300	....	697	220	O.H.	3.35	15
3	1	1	1	8	3	1,296	......	......	192	12	5	1,505	....	O.H.	3.62	16
3	1	1	1	8	3	350	......	......	56	131	52	589	....	150	1.42	17
3	2	1	1	8	2	....	......	......	80	250	....	330	....	132	.79	18
4	2	....	2	10	5	320	......	$441	......	491	....	1,252	256	O.H.	2.41	19
1	1	1	1	6	2	400	......	......	......	107	7	514	....	216	1.65	20
....	....	....	1	3	2	900	......	......	......	155	80	1,135	....	O.H.	7.28	21
1	1	....	2	6	3	675	......	......	......	400	....	1,075	....	O.H.	3.45	22
....	....	1	1	4	2	97	......	......	......	144	147	388	....	O.H.	1.87	23
3	1	1	1	8	2	416	......	......	......	200	....	616	....	93	1.48	24

[b] Not reported.

TABLE XXVIII.—SINGLE WOMEN 16 YEARS OF AGE AND OVER AT WORK: CONDITION OF THE WOMAN AND THE FAM

PENNSYLVANIA—Continued.

Family number.	The father.		The single woman.								Membership of family.	
											Occupation or condition of—	
	Race and nativity.	Years in U. S.	Age.	Occupation or industry.	Days worked past year.	Earnings past year.	Years since beginning work.	Can read and write.	Mos. school attendance.		Father.	Mother.
25	Irish, N.		16	Wrapper	230	$190	$1\frac{6}{12}$	Yes.	60		Fireman	Home.
26	Irish, N.		16	Grinder	295	300	3	Yes.	70		Dead	Home.
27	Irish, N.		16	Operator, telephone.	284	260	2	Yes.	70		Teamster	Home.
28	Bohem., F.	22	16	Wrapper	156	78	$\frac{6}{12}$	Yes.	62		Incapac.	Home.
29	Bohem., F.	21	16	Grinder	245	123	$1\frac{1}{12}$	Yes.	49		Laborer	Home.
30	Croatian, F.	12	16	Transferrer	275	228	$1\frac{6}{12}$	Yes.	70		Laborer, R. R.	Home.
31	English, F.	5	16	Wiper	108	54	(a)	(a)	(a)		Engineer	Home.
32	French, F.	18	16	Grinder	260	195	2	Yes.	70		Divorced	Work.
33	French, F.	3	16	Take-off	250	187	3	Yes.	30		Blower	Home.
34	French, F.	6	16	Sorter	250	195	1	Yes.	70		Machinist	Home.
35	French, F.	25	16	Selector	276	184	2	Yes.	72		Agent	Home.
36	French, F.	22	16	Stamper	300	200	3	Yes.	60		Miner	Home.
37	French, F.	4	16	Carton maker	168	153	1	Yes.	50		Laborer	Home.
38	French, F.	20	16	Transferer	150	112	$\frac{6}{12}$	Yes.	60		Furnace man	Dead.
39	French, F.	20	16	Wrapper	270	200	$1\frac{6}{12}$	Yes.	50		Teamster	Home.
40	French, F.	(a)	16	Selector	200	133	3	Yes.	30		Deserter	Home.
41	German, F.	(a)	16	Carry-in	295	175	(a)	(a)	(a)		Dead	Work.
42	German, F.	18	16	Solderer, lamp.	295	325	2	(a)	60		Laborer	Home.
43	German, F.	6	16	Transferer	150	124	$3\frac{6}{12}$	(a)	70		Transferer	Home.
44	German, F.	30	16	Presser	257	200	2	(a)	60		Laborer	Home.
45	German, F.	22	16	Domestic	325	115	1	(a)	63		Dead	Work.
46	German, F.	23	16	Wrapper	250	165	2	(a)	55		Miner	Home.
47	German, F.	16	16	Domestic	72	24	$\frac{3}{12}$	(a)	80		Laborer	Home.
48	German, F.	30	16	Bunch maker, tobacco.	250	187	2	(a)	60		Cigar maker.	Home.
49	German, F.	25	16	Leertender	225	112	$1\frac{6}{12}$	(a)	60		Furnace man	Home.
50	German, F.	27	16	Wiper	235	117	2	(a)	58		Miner	Home.
51	Irish, F.	27	16	Compositor, printing.	307	202	2	(a)	63		Watchman	Home.
52	Irish, F.	25	16	Knitter, hosiery	200	99	2	(a)	54		Teamster	Home.
53	Irish, F.	25	16	Domestic	144	156	1	(a)	72		Decorator	Home.
54	Irish, F.	26	16	Wiper	232	96	(a)	(a)	(a)		Helper	Home.
55	Irish, F.	20	16	Domestic	125	75	4	Yes.	10		Deserter	Work.
56	Italian, F.	25	16	Cut-off	240	120	$1\frac{6}{12}$	Yes.	64		Miner	Home.
57	Italian, F.	16	16	Wiper	247	124	3	Yes.	18		Miner	Home.
58	Italian, F.	31	16	Carton maker	265	176	1	Yes.	30		Laborer	Home.
59	Polish, F.	16	16	Leertender	289	192	$2\frac{3}{12}$	No.	8		Miner	Home.
60	Polish, F.	16	16	Grinder	72	53	$\frac{3}{12}$	Yes.	54		Driver	Home.
61	Polish, F.	17	16	Grinder	242	140	2	Yes.	27		Coke drawer	Home.
62	Polish, F.	27	16	Grinder	192	96	$1\frac{1}{12}$	Yes.	65		Laborer	Home.
63	Polish, F.	35	16	Grinder	240	190	$2\frac{4}{12}$	Yes.	40		Miner	Home.
64	Polish, F.	22	16	Wiper	104	52	2	Yes.	80		Coke drawer	Home.
65	Polish, F.	19	16	Wiper	240	120	$1\frac{2}{12}$	Yes.	16		Coke drawer	Home.
66	Polish, F.	16	16	Decorator	299	199	3	Yes.	30		Laborer	Home.
67	Polish, F.	21	16	Sand blaster	295	181	$2\frac{2}{12}$	Yes.	40		Laborer	Home.
68	Polish, F.	17	16	Etcher, needle.	245	143	$2\frac{3}{12}$	Yes.	60		Dead	Home.
69	Polish, F.	17	16	Etcher, needle.	126	63	$\frac{5}{12}$	Yes.	70		Coke drawer	Home.
70	Polish, F.	18	16	Domestic	365	104	2	Yes.	72		Laborer	Home.
71	Polish, F.	17	16	Packer	290	256	$3\frac{4}{12}$	Yes.	45		Cobbler	Work.
72	Polish, F.	20	16	Sorter, corks	200	166	2	Yes.	60		Laborer	Home.
73	Polish, F.	21	16	Carton maker	250	168	2	Yes.	40		Laborer	Home.
74	Polish, F.	34	16	Wiper	295	177	$1\frac{8}{12}$	Yes.	65		Laborer	Home.
75	Polish, F.	18	16	Carton maker	269	134	$1\frac{5}{12}$	Yes.	45		Laborer	Home.
76	Polish, F.	18	16	Smoother, cut glass.	235	141	2	Yes.	82		Coke drawer	Home.
77	Russian, F.	23	16	Stamper	276	184	3	Yes.	18		Miner	Home.
78	English, F.	22	16	Cut-off	300	250	3	Yes.	40		Packer	Home.
79	Slav, F.	24	16	Chipper	175	115	$\frac{9}{12}$	Yes.	54		Miner	Home.
80	Slav, F.	23	16	Waxer	228	133	$2\frac{10}{12}$	Yes.	63		Mason	Home.
81	Slav, F.	22	16	Cut-off	218	109	3	Yes.	20		Laborer	Home.
82	Slav, F.	15	16	Selector	245	123	3	Yes.	8		Laborer	Home.
83	Slav, F.	17	16	Domestic	312	624	2	Yes.	52		Miner	Home.
84	Slav, F.	20	16	Grinder	243	122	2	Yes.	50		Miner	Home.

[b] Not reported.

AGE, OCCUPATION, AND EDUCATION OF THE WOMAN, AND ECONOMIC ILY, IN DETAIL, FOR EACH STATE—Continued.

PENNSYLVANIA—Continued.

Membership of family.						Income of family past year.						Total earnings and income past year.	Am't retained by children 16 and over.	Rent past year.	Per capita weekly income of family.	Family number.
Children of ages—				Total.	Total wage earners.	Earnings of—					Other.					
								Children—								
Under 10.	10 to 13.	14 and 15.	16 and over.			Father.	Mother.	Under 14.	14 and 15.	16 and over.						
....	....	1	1	4	3	$600	......	......	$220	$190	......	$1,010	......	$72	$4.86	25
....	....	1	3	5	4	......	......	......	210	851	$90	1,151	$401	180	4.43	26
3	1	1	1	8	3	320	......	......	45	260	......	625	......	48	1.50	27
4	1	1	3	11	3	......	......	......	......	1,502	45	1,547	......	O.H.	2.70	28
....	1	1	1	5	3	260	......	......	110	123	100	593	......	O.H.	2.28	29
2	....	....	1	5	2	600	......	......	......	228	24	852	......	O.H.	3.28	30
4	2	....	1	9	2	876	......	......	......	54	84	1,014	......	180	2.17	31
....	1	....	1	3	3	......	$156	$50	......	195	106	507	......	O.H.	3.25	32
....	1	1	1	5	3	666	......	......	50	187	......	903	......	120	3.47	33
2	1	....	1	6	2	650	......	......	......	195	......	845	......	O.H.	2.71	34
1	1	1	2	7	4	307	......	......	104	581	......	992	......	144	2.73	35
1	1	1	1	6	3	660	......	......	200	200	180	1,240	......	O.H.	3.97	36
....	2	1	1	6	3	180	......	......	180	153	......	513	......	O.H.	1.64	37
....	1	1	1	4	3	700	......	......	175	112	30	1,017	......	O.H.	4.89	38
2	....	1	1	6	3	600	......	......	191	200	72	1,063	......	72	3.41	39
....	....	....	3	4	3	......	......	......	......	1,599	......	1,599	946	120	7.69	40
....	....	....	1	2	2	......	26	......	......	175	35	236	......	36	2.27	41
4	2	....	1	9	2	438	......	......	......	325	125	888	......	162	1.90	42
3	2	1	1	9	3	625	......	......	82	124	8	839	......	156	1.79	43
....	1	1	2	6	4	190	......	......	312	476	......	978	76	120	3.13	44
2	....	1	1	5	3	......	510	......	38	115	35	698	......	O.H.	2.68	45
3	2	1	3	11	4	240	......	......	250	565	77	1,132	......	144	1.98	46
1	2	1	4	10	5	336	......	......	36	476	......	848	......	144	1.63	47
1	....	1	1	5	3	375	......	......	95	187	......	657	......	84	2.53	48
1	2	1	1	7	3	375	......	......	100	112	12	599	......	78	1.65	49
2	3	1	4	12	6	333	......	......	144	1,258	10	1,745	......	108	2.80	50
....	2	1	1	6	3	624	......	......	200	202	......	1,026	......	O.H.	3.29	51
....	1	1	1	5	3	624	......	......	138	99	20	881	......	96	3.39	52
1	2	1	3	9	5	728	......	......	72	948	......	1,748	508	120	3.74	53
5	2	1	1	11	3	678	......	......	92	96	38	904	......	240	1.58	54
2	1	1	1	6	3	......	300	......	200	75	......	575	......	72	1.84	55
2	....	1	2	7	3	168	......	......	148	120	......	436	......	54	1.20	56
4	2	....	1	9	2	194	......	......	......	124	......	318	......	72	.68	57
1	....	....	1	4	2	144	......	......	......	176	73	393	......	144	1.89	58
....	....	....	1	3	2	520	......	......	......	192	......	712	......	66	4.56	59
4	1	....	1	8	2	612	......	......	......	53	86	751	......	168	1.81	60
2	1	....	1	6	2	315	......	......	......	140	......	455	......	66	1.46	61
....	....	1	3	6	4	300	......	......	......	786	20	1,106	......	54	3.54	62
....	....	....	2	4	3	305	......	......	......	460	......	765	......	66	3.68	63
3	2	....	5	12	5	190	......	......	......	714	47	951	......	84	1.52	64
5	....	....	1	8	2	378	......	......	......	120	18	516	......	84	1.24	65
3	1	....	2	8	3	413	......	......	......	847	......	1,260	......	O.H.	3.03	66
1	....	....	1	4	2	414	......	......	......	181	......	595	......	36	2.86	67
3	....	1	3	8	3	......	......	......	51	455	b 245	751	......	78	1.81	68
1	1	1	2	7	4	200	......	......	64	183	......	447	......	84	1.23	69
3	2	1	2	10	3	525	......	......	267	104	......	896	......	O.H.	1.72	70
1	....	1	2	6	5	30	45	......	60	506	......	641	50	72	2.05	71
4	1	1	1	9	3	266	......	......	66	166	......	498	......	84	1.06	72
....	2	2	1	7	4	375	......	......	532	168	3	1,078	......	O.H.	2.96	73
1	1	1	1	6	3	466	......	......	33	177	......	676	......	72	2.17	74
2	1	1	2	8	3	403	......	......	72	134	48	657	......	O.H.	1.58	75
5	2	1	1	11	3	300	......	......	118	141	47	606	......	78	1.06	76
4	1	2	1	10	4	313	......	......	599	184	78	1,174	......	O.H.	2.26	77
1	2	....	2	7	3	300	......	44	......	250	......	594	......	162	1.63	78
1	1	....	1	5	2	100	......	......	......	115	......	215	......	O.H.	.83	79
....	....	....	2	4	3	592	......	......	......	397	20	1,009	......	72	4.85	80
4	1	1	2	10	3	319	......	......	58	109	64	550	......	60	1.06	81
....	....	1	2	5	4	210	......	......	88	539	......	837	......	84	3.22	82
1	2	1	1	7	3	250	......	......	50	624	80	1,004	......	O.H.	2.76	83
2	2	1	1	8	3	181	......	......	120	122	24	447	......	54	1.07	84

b Including $200 life insurance received.

TABLE XXVIII.—SINGLE WOMEN 16 YEARS OF AGE AND OVER AT WORK: CONDITION OF THE WOMAN AND THE FAM

PENNSYLVANIA—Continued.

Family number.	The father.		The single woman.								Membership of family.	
											Occupation or condition of—	
	Race and nativity.	Years in U. S.	Age.	Occupation or industry.	Days worked past year.	Earnings past year.	Years since beginning work.	Can read and write.	Mos. school attendance.		Father.	Mother.
85	Slav, F	22	16	Domestic	312	$156	1	Yes.	56		Laborer	Home.
86	Slav, F	20	16	Smoother, cut glass.	245	163	4	Yes.	48		Coke drawer.	Home.
87	Slav, P	19	16	Smoother, cut glass.	246	148	$1\frac{4}{12}$	Yes.	62		Laborer	Home.
88	Slav, F	23	16	Transferer	250	144	1	Yes.	63		Dead	Home.
89	Slovak, F	16	16	Domestic	307	224	$1\frac{6}{12}$	Yes.	63		Dead	Home.
90	Slovak, F	20	16	Sorter	256	189	$3\frac{9}{12}$	Yes.	43		Idle	Work.
91	Slovak, F	20	16	Cut-off	268	245	4	Yes.	50		Laborer	Home.
92	Slovak, F	14	16	Packer	254	166	$1\frac{3}{12}$	Yes.	40		Laborer, R. R.	Home.
93	Slovak, F	20	16	Carton maker	273	200	2	Yes.	56		Laborer	Home.
94	American	......	16	Packer	148	126	$\frac{7}{12}$	Yes.	63		Teamster	Home.
			16	Stamper	142	123	$\frac{7}{12}$	Yes.	63			
95	American	......	16	Sorter	238	116	2	Yes.	64		Dead	Home.
			16	Sorter	240	128	2	Yes.	64			
96	American	......	16	Washer	36	36	$\frac{6}{12}$	Yes.	90		Finisher	Home.
			16	Washer	36	36	$\frac{6}{12}$	Yes.	90			
97	Slav, F	18	16	Sorter	240	120	3	Yes.	60		Coke drawer	Home.
			16	Domestic	240	80	3	Yes.	62			
98	English, F	27	16	Sorter	250	206	2	Yes.	60		Miner	Home.
			17	Grinder	200	150	2	Yes.	70			
99	German, F	4	16	Washer	300	250	2	Yes.	50		Sand blaster	Home.
			17	Transferer	300	300	3	Yes.	50			
100	German, F	19	16	Mold cleaner	120	90	$\frac{5}{12}$	Yes.	64		Laborer	Home.
			17	Mold cleaner	290	225	3	Yes.	64			
101	German, F	18	16	Chipper	300	234	$2\frac{6}{12}$	Yes.	60		Laborer	Home.
			17	Stamper	275	220	3	Yes.	60			
102	Polish, F	12	16	Etcher, needle.	242	121	1	Yes.	15		Coke drawer	Home.
			17	Grinder	236	118	3	No.	......			
103	Slav, F	8	16	Grinder	275	235	2	Yes.	60		Miner	Home.
			17	Domestic	225	120	4	Yes.	50			
104	Slav, F	16	16	Wrapping	269	181	(b)	(b)	(b)		Laborer	Home.
			17	Clerk, store	260	260	(b)	(b)	(b)			
105	American	......	16	Wiper	32	19	(b)	(b)	(b)		Baggageman.	Work.
			18	Wiper	32	19	(b)	(b)	(b)			
106	American	......	16	Washer	300	200	(b)	(b)	(b)		Dead	Home.
			18	Wiper	300	200	(b)	(b)	(b)			
107	American	......	16	Sorter	240	144	2	Yes.	28		Miner	Home.
			18	Sorter	245	139	5	Yes.	63			
108	American	......	16	Spinner	156	96	2	Yes.	63		Laborer	Home.
			18	Comber, worsted	156	108	4	Yes.	63			
109	American	......	16	Grinder	240	144	$1\frac{6}{12}$	Yes.	63		Laborer	Work.
			18	Grinder	244	162	$2\frac{6}{12}$	Yes.	63			
110	American	......	16	Seamstress	295	236	2	Yes.	55		Dead	Home.
			18	Decorator	220	293	4	Yes.	60			
111	American	......	16	Selector	78	57	$\frac{4}{12}$	Yes.	64		Truckman	Home.
			18	Selector	96	96	$\frac{4}{12}$	Yes.	84			
112	American	......	16	Selector	150	110	$\frac{7}{12}$	Yes.	65		Leersman	Home.
			18	Selector	260	250	5	Yes.	35			
113	Bohem., F	20	16	Selector	246	128	1	Yes.	72		Miner	Home.
			18	Janitress	280	364	3	Yes.	70			
114	English, F	30	16	Grinder	240	160	(b)	(b)	(b)		Idle	Work.
			18	Grinder	300	180	(b)	(b)	(b)			
115	German, F	20	16	Laundress	303	146	2	Yes.	60		Merchant	Home.
			18	Clerk, grocery	156	104	3	Yes.	72			
116	Irish, F	24	16	Crack-off	290	294	2	Yes.	70		Furnace man.	Home.
			18	Cementer	295	400	2	Yes.	65			
117	Irish, F	35	16	Sorter	300	160	(b)	(b)	(b)		Laborer	Home.
			18	Sorter	300	160	(b)	(b)	(b)			
118	Italian, F	24	16	Grinder	243	121	2	Yes.	62		Laborer	Work.
			18	Washer	245	142	6	Yes.	64			
119	Polish, F	37	16	Wrapper	295	148	(b)	(b)	(b)		Laborer	Home.
			18	Decorator	295	197	(b)	(b)	(b)			

[a] Including 2 other members.

[b] Not reported.

AGE, OCCUPATION, AND EDUCATION OF THE WOMAN, AND ECONOMIC
ILY, IN DETAIL, FOR EACH STATE—Continued.

PENNSYLVANIA—Continued.

Membership of family.						Income of family past year.						Total earnings and income past year.	Am't retained by children 16 and over.	Rent past year.	Per capita weekly income of family.	Family number.
Children of ages—				Total.	Total wage earners.	Earnings of—					Other.					
						Father.	Mother.	Children—								
Under 10.	10 to 13.	14 and 15.	16 and over.					Under 14.	14 and 15.	16 and over.						
1	1	1	2	7	3	$252	......	......	$21	$156	......	$429	......	O.H.	$1.18	85
3	1	2	1	9	4	305	......	......	239	163	......	707	......	$78	1.51	86
2	2	1	1	8	3	260	......	......	144	148	$35	587	......	O.H.	1.41	87
1	2	1	3	8	4	......	......	......	124	663	35	822	......	O.H.	1.98	88
2	....	2	2	7	4	......	......	......	308	484	20	812	......	O.H.	2.23	89
1	....	....	1	4	2	......	$104	......	......	189	......	293	......	90	1.41	90
3	1	2	1	9	4	288	......	......	190	245	......	723	......	72	1.54	91
5	....	....	1	8	2	579	......	......	......	166	......	745	......	120	1.79	92
3	1	....	1	7	2	439	......	......	......	200	......	639	......	120	1.76	93
....	2	....	3	a9	5	360	......	$156	......	741	87	1,344	......	O.H.	2.87	94
....	....	....	3	4	3	......	......	......	......	494	6	500	......	96	2.40	95
....	....	....	2	4	3	1,300	......	......	......	72	8	1,380	$72	132	6.63	96
3	1	1	3	10	5	200	......	......	35	312	52	599	......	O.H.	1.15	97
4	2	1	2	11	4	512	......	......	66	356	140	1,074	......	120	1.88	98
....	1	1	2	6	4	778	......	......	150	550	21	1,499	......	180	4.80	99
....	....	....	3	5	4	520	......	......	......	765	......	1,285	......	O.H.	4.94	100
4	1	2	2	11	4	1,092	......	......	132	454	42	1,720	......	O.H.	3.01	101
2	1	....	2	7	3	237	......	......	......	239	12	488	......	66	1.34	102
2	2	....	2	8	3	512	......	......	......	355	......	867	......	138	2.08	103
2	2	1	2	9	4	477	......	......	39	441	490	1,447	......	294	3.09	104
1	....	....	2	5	4	466	100	......	......	38	......	604	18	156	2.32	105
....	....	1	3	5	4	......	......	......	32	665	......	697	......	108	2.68	106
2	1	....	2	7	3	800	......	......	......	283	37	1,120	......	96	3.08	107
5	2	1	2	12	4	312	......	......	152	204	......	668	......	132	1.07	108
1	2	1	3	9	5	506	20	......	......	558	......	1,084	......	180	2.32	109
....	1	....	2	4	2	......	......	......	......	529	......	529	......	120	2.54	110
4	1	1	2	10	4	535	......	......	43	153	......	731	11	60	1.41	111
....	....	1	3	6	3	360	......	......	......	360	......	720	180	144	2.31	112
....	2	....	5	9	5	278	......	......	......	1,542	90	1,910	......	84	4.08	113
....	1	....	3	6	4	......	175	......	......	617	......	792	......	O.H.	2.54	114
2	2	1	2	9	4	400	......	......	211	250	......	861	......	276	1.84	115
4	1	1	2	10	3	525	......	......	......	694	10	1,229	......	150	2.36	116
	2	1	3	9	4	360	......	......	......	660	......	1,020	......	120	2.18	117
4	1	....	2	c10	4	234	100	......	......	263	......	597	......	O. H.	1.15	118
1	1	....	3	7	4	201	......	......	......	853	84	1,138	......	O.H.	3.13	119

[c] Including 1 other member.

TABLE XXVIII.—SINGLE WOMEN 16 YEARS OF AGE AND OVER AT WORK: CONDITION OF THE WOMAN AND THE FAM

PENNSYLVANIA—Continued.

Family number.	The father.		Age.	The single woman.						Membership of family.	
										Occupation or condition of—	
	Race and nativity.	Years in U. S.		Occupation or industry.	Days worked past year.	Earnings past year.	Years since beginning work.	Can read and write.	Mos. school attendance.	Father.	Mother
120	American		16	Chipper	150	$75	2	Yes.	65	Miner	Home.
			19	Chipper	150	75	4	Yes.	54		
121	American		16	Sorter	245	164	$1\frac{10}{12}$	Yes.	64	Laborer	Home.
			19	Sorter	240	160	3	Yes.	64		
122	German, F	27	16	Selector	254	160	2	Yes.	60	Carpenter	Home.
			19	Selector	250	162	7	Yes.	60		
123	Italian, F	33	16	Carton maker	120	80	4	Yes.	63	Miner	Home.
			19	Cut-off	179	149	4	Yes.	20		
124	Polish, F	19	16	Winder	306	306	3	Yes.	60	Pourer, iron	Home.
			19	Domestic	180	225	3	Yes.	90		
125	Irish, F	25	16	Wiper	283	189	(b)	(b)	(b)	Puddler	Home.
			20	Glazer	259	345	(b)	(b)	(b)		
126	Polish, F	10	16	Printing	300	252	1	Yes.	39	Laborer	Home.
			20	Grinder	300	300	4	Yes.	46		
127	Irish, F	40	16	Decorator	192	172	$\frac{8}{12}$	Yes.	68	Dead	Home.
			20	Decorator	240	480	5	Yes.	74		
			24	Domestic	240	120	8	Yes.	74		
128	American		16	Fluter	148	74	$\frac{7}{12}$	Yes.	76	Pumpman	Home.
			21	Saleswoman, silverware.	300	600	8	Yes.	48		
129	Irish, N		16	Reeler, wool	100	94	2	Yes.	60	Baker	Home.
			21	Warper, wool	200	275	7	Yes.	56		
130	French, F	17	16	Carton maker	198	195	$\frac{9}{12}$	Yes.	63	Miner	Home.
			21	Carton maker	216	212	3	Yes.	63		
131	German, F	40	16	Milliner	192	160	(b)	(b)	(b)	Dead	Home.
			21	Decorator	290	400	(b)	(b)	(b)		
			26	Clerk	300	500	(b)	(b)	(b)		
132	Irish, N		16	Selector	288	432	2	Yes.	56	Incapac.	Home.
			22	Selector	300	459	6	Yes.	80		
133	Polish, F	32	16	Packer	192	102	$\frac{8}{12}$	Yes.	40	Laborer	Home.
			22	Mach. op., corks.	281	309	8	Yes.	72		
134	German, F	30	16	Wiper	280	207	(b)	(b)	(b)	Dead	Home.
			23	Wiper	271	190	(b)	(b)	(b)		
135	German, F	23	16	Sorter, tin	100	100	1	Yes.	58	Laborer	Home.
			23	Sorter, tin	100	100	3	Yes.	56		
136	American		16	Coverer, boxes	250	250	2	Yes.	56	Teamster	Home.
			30	Transferer	218	218	16	Yes.	56		
137	American		16	Fluter	67	33	$\frac{3}{12}$	Yes.	54	Miner	Home.
			30	Waxer	21	11	18	Yes.	8		
138	American		17	Selector	200	130	$\frac{10}{12}$	Yes.	70	Laborer	Home.
139	American		17	Lacquerer, lamps.	120	69	$2\frac{6}{12}$	Yes.	63	Brakeman	Home.
140	American		17	Decorator	259	215	3	Yes.	50	Engineer	Dead.
141	American		17	Packer	148	110	$\frac{6}{12}$	Yes.	90	Machinist	Home.
142	American		17	Sorter	266	266	2	Yes.	64	Laborer	Home.
143	American		17	Winder	260	178	4	Yes.	63	Dead	Work.
144	American		17	Teacher, music.	80	200	3	Yes.	60	Janitor	Home.
145	American		17	Bookbinding	60	180	(b)	(b)	(b)	Carpenter	Home.
146	American		17	Waitress	300	175	2	Yes.	64	Dead	Work.
147	German, N		17	Operator, telephone.	75	68	$\frac{3}{12}$	Yes.	50	Repairer	Work.
148	German, N		17	Clerk, store	300	150	4	Yes.	50	Dead	Home.
149	German, N		17	Transferer	216	127	$\frac{9}{12}$	Yes.	90	Overseer	Home.
150	German, N		17	Transferer	235	138	(b)	(b)	(b)	Millwright	Home.
151	German, F	44	17	Decorator	270	480	$1\frac{1}{12}$	Yes.	90	Decorator	Home.
152	Irish, N		17	Knitter, hosiery	260	220	3	Yes.	56	Switchman	Home.
153	Irish, N		17	Clerk	289	179	(b)	(b)	(b)	Laborer	Home.
154	English, N		17	Laundress	210	165	2	Yes.	56	Dead	Home.
155	French, F	18	17	Grinder	285	218	3	Yes.	72	Grinder	Home.
156	French, F	20	17	Decorator	150	118	$1\frac{4}{12}$	Yes.	75	Washer	Home.
157	French, F	14	17	Grinder	276	218	3	Yes.	72	Miner	Home.
158	French, F	3	17	Transferer	300	234	$3\frac{6}{12}$	Yes.	50	Laborer	Home.
159	German, F	20	17	Wiper	295	175	(b)	(b)	(b)	Dead	Work.
160	German, F	20	17	Wiper	268	171	4	Yes.	63	Dead	Work.
161	German, F	28	17	Packer	200	150	$2\frac{6}{12}$	Yes.	65	Laborer	Home.
162	German, F	15	17	Domestic	360	180	3	Yes.	60	Deserter	Work.

[a] Including 1 other member.

[b] Not reported.

AGE, OCCUPATION, AND EDUCATION OF THE WOMAN, AND ECONOMIC ILY, IN DETAIL, FOR EACH STATE—Continued.

PENNSYLVANIA—Continued.

Membership of family.						Income of family past year.						Total earnings and income past year.	Am't retained by children 16 and over.	Rent past year.	Per capita weekly income of family.	Family number.
Children of ages—				Total.	Total wage earners.	Earnings of—					Other.					
						Father.	Mother.	Children—								
Under 10.	10 to 13.	14 and 15.	16 and over.					Under 14.	14 and 15.	16 and over.						
....	....	....	3	5	4	$480	......	......	......	$410	......	$890	......	$60	$3.42	120
2	1	1	2	8	4	426	......	......	$30	324	......	780	......	O.H.	1.88	121
....	....	1	2	5	3	308	......	......	......	322	......	630	......	O.H.	2.42	122
3	....	1	3	a10	4	670	......	......	......	261	......	931	......	180	1.79	123
2	....	1	2	7	4	459	......	......	234	531	......	1,224	......	O.H.	3.36	124
....	1	....	3	6	4	841	......	......	......	1,084	......	1,925	$189	144	6.17	125
1	1	1	2	7	4	274	......	......	87	552	$90	1,003	......	O.H.	2.76	126
....	1	....	5	7	5	......	......	......	......	1,942	c500	2,442	......	180	6.71	127
3	1	....	2	8	3	624	......	......	......	674	......	1,298	......	72	3.12	128
....	....	1	4	7	6	525	......	......	190	1,069	......	1,784	491	168	4.90	129
....	1	....	2	5	3	324	......	......	......	407	......	731	......	120	2.81	130
....	....	....	4	5	4	......	......	......	......	1,476	......	1,476	......	O.H.	5.68	131
....	....	....	3	5	....	......	......	......	......	1,203	52	1,255	......	O.H.	4.83	132
1	2	....	2	7	3	189	......	......	......	411	108	708	......	O.H.	1.95	133
....	....	....	3	4	3	......	......	......	......	892	......	892	......	120	4.29	134
3	1	1	3	10	5	585	......	......	150	530	......	1,265	230	168	2.43	135
1	1	1	5	10	7	312	......	......	195	2,540	3	3,050	1,668	192	5.87	136
....	....	1	2	5	4	300	......	......	11	44	......	355	......	72	1.37	137
1	1	1	1	6	3	600	......	......	30	130	......	760	......	144	2.44	138
4	1	....	1	8	2	732	......	......	......	69	......	801	......	180	1.93	139
....	1	1	1	4	2	900	......	......	......	215	......	1,115	......	O.H.	5.36	140
....	....	....	2	4	3	500	......	......	......	258	......	758	......	168	3.64	141
3	1	2	2	10	5	375	......	......	522	671	......	1,568	463	180	3.02	142
1	....	2	1	5	4	......	$156	......	274	178	......	608	......	72	2.34	143
1	1	1	4	9	6	375	......	......	100	2,056	......	2,531	1,380	O.H.	5.41	144
1	....	2	3	8	4	620	......	......	25	800	......	1,445	......	108	3.47	145
....	....	1	2	4	3	......	350	......	72	175	104	701	......	84	3.37	146
3	1	2	1	9	4	675	78	......	207	68	......	1,028	......	144	2.20	147
....	2	1	2	6	3	......	......	......	250	400	......	650	......	150	2.08	148
3	2	1	2	10	3	900	......	......	......	379	......	1,279	......	O.H.	2.46	149
3	....	....	1	a7	2	542	......	......	......	138	......	680	54	132	1.87	150
1	....	1	3	7	3	1,250	......	......	......	1,080	......	2,330	......	252	6.40	151
2	....	1	1	6	3	468	......	......	186	220	......	874	......	108	2.80	152
....	2	1	1	6	2	780	......	......	......	179	......	959	179	132	3.07	153
....	....	1	1	3	2	......	......	......	165	250	25	440	......	36	2.82	154
....	....	1	1	4	3	675	......	......	237	218	96	1,226	......	O.H.	5.89	155
....	....	....	1	3	2	562	......	......	......	118	70	750	......	O.H.	4.81	156
....	1	....	1	4	2	768	......	......	......	218	......	986	......	O.H.	4.74	157
....	....	....	1	3	2	600	......	......	......	234	......	834	......	60	5.35	158
....	3	2	1	7	4	......	78	......	572	175	c320	1,145	......	84	3.15	159
1	2	2	1	7	4	......	52	......	527	171	c500	1,250	......	84	3.43	160
1	1	1	1	6	3	412	......	......	50	150	57	669	......	O.H.	2.14	161
3	....	1	1	6	3	......	120	......	306	180	c30	636	......	192	2.04	162

c Amount of life insurance received.

TABLE XXVIII.—SINGLE WOMEN 16 YEARS OF AGE AND OVER AT WORK: CONDITION OF THE WOMAN AND THE FAM

PENNSYLVANIA—Continued.

Family number.	The father.		The single woman.							Membership of family.	
										Occupation or condition of—	
	Race and nativity.	Years in U. S.	Age.	Occupation or industry.	Days worked past year.	Earnings past year.	Years since beginning work.	Can read and write.	Mos. school attendance.	Father.	Mother.
163	German, F.	21	17	Washer	289	$277	5	Yes.	57	Laborer	Home.
164	German, F.	28	17	Selector	289	289	5	Yes.	32	Laborer	Home.
165	German, F.	20	17	Capper, distillery.	175	153	3	Yes.	65	Grinder	Home.
166	German, F.	29	17	Sorter	42	24	(a)	(a)	(a)	Foreman	Home.
167	German, F.	24	17	Sorter	272	140	(a)	(a)	(a)	Laborer	Home.
168	German, F.	63	17	Wiper	265	158	(a)	(a)	(a)	Dead	Home.
169	German, F.	20	17	Stamper	168	126	4	Yes.	70	Incapac.	Work.
170	German, F.	6	17	Transferer	300	325	3	Yes.	45	Dead	Home.
171	Irish, F.	27	17	Sorter	300	126	(a)	(a)	(a)	Puddler	Home.
172	Irish, F.	31	17	Twister, wool	300	300	3	Yes.	60	Dead	Home.
173	Irish, F.	22	17	Clerk, confectionery.	308	225	3	Yes.	63	Conductor, R. R.	Home.
174	Irish, F.	19	17	Leer tender	230	187	3	Yes.	63	Laborer	Home.
175	Irish, F.	18	17	Knitter, hosiery	100	91	4	Yes.	56	Laborer	Home.
176	Italian, F.	17	17	Washer	104	96	$\frac{4}{12}$	Yes.	72	Boarding-house keeper.	Home.
177	Italian, F.	5	17	Packer	126	84	$\frac{6}{12}$	Yes.	30	Laborer	Home.
178	Polish, F.	27	17	Grinder	240	200	6	Yes.	40	Coke drawer	Home.
179	Polish, F.	17	17	Grinder	240	120	3	Yes.	28	Coke burner.	Home.
180	Polish, F.	6	17	Bakery	306	280	4	Yes.	45	Laborer	Home.
181	Polish, F.	21	17	Wiper	72	44	3	Yes.	30	Laborer	Home.
182	Polish, F.	18	17	Mold cleaner	150	75	1	Yes.	70	Dead	Home.
183	Polish, F.	1	17	Beveler	144	108	$\frac{6}{12}$	Yes.	45	Deserter	Home.
184	Polish, F.	18	17	Decorator	190	140	$1\frac{6}{12}$	Yes.	78	Laborer	Home.
185	Polish, F.	23	17	Grinder	240	144	3	No.		Laborer	Home.
186	Polish, F.	17	17	Washer	307	250	(a)	(a)	(a)	Laborer	Home.
187	Polish, F.	9	17	Decorator	280	293	(a)	(a)	(a)	Machinist	Home.
188	Polish, F.	19	17	Decorator	234	195	(a)	(a)	(a)	Laborer	Home.
189	Polish, F.	16	17	Beveler	258	323	3	Yes.	(a)	Dead	Work.
190	Polish, F.	18	17	Grinder	245	220	4	Yes.	24	Coke burner.	Home.
191	Polish, F.	20	17	Grinder	240	240	3	Yes.	56	Coke drawer	Home.
192	Polish, F.	15	17	Packer	256	176	$2\frac{2}{12}$	Yes.	36	Laborer	Home.
193	Polish, F.	30	17	Mold cleaner	295	196	(a)	(a)	(a)	Driver	Home.
194	English, F.	34	17	Decorator	196	190	$4\frac{4}{12}$	Yes.	65	Incapac.	Home.
195	Slav, F.	21	17	Domestic	242	121	1	Yes.	48	Miner	Home.
196	Slav, F.	18	17	Wiper	242	121	1	Yes.		Incapac.	Home.
197	Slovak, F.	4	17	Stamper, metal.	295	275	3	No.	10	Laborer	Home.
198	Slovak, F.	23	17	Carton maker	264	220	3	Yes.	13	Idle	Home.
199	Slovak, F.	18	17	Stenographer	300	260	4	Yes.	54	Deserter	Home.
200	Scand., F.	20	17	Domestic	208	117	5	Yes.	54	Dead	Work.
201	Welsh, F.	24	17	Domestic	340	187	2	Yes.	64	Engineer	Home.
202	German, F.	25	17	Waitress	250	200	3	Yes.	54	Dead	Home.
			17	Packer	220	90	4	Yes.	54		
203	German, N.		17	Bundlewrapper	283	144	(a)	(a)	(a)	Presser	Home.
			17	Milliner	181	79	(a)	(a)	(a)		
			18	Order clerk	289	178	(a)	(a)	(a)		
204	Bohem., F.	27	17	Selector	178	89	$\frac{7}{12}$	Yes.	64	Miner	Home.
			18	Order clerk	245	123	4	Yes.	64		
205	English, F.	20	17	Wiper	295	204	3	Yes.	45	Dead	Home.
			18	Clerk, store	307	286	3	Yes.	61		
206	American		17	Packer	260	195	$1\frac{6}{12}$	Yes.	60	Separated	Work.
			19	Packer	300	300	6	Yes.	60		
207	American		17	Grinder	248	187	3	Yes.	45	Dead	Home.
			19	Clerk, store	250	271	3	Yes.	72		
208	German, F.	60	17	Grinder	293	245	3	Yes.	70	Incapac.	Work.
			19	Grinder	290	300	5	Yes.	60		
209	Irish, F.	20	17	Spinner, worsted.	200	176	3	Yes.	56	Bricklayer	Home.
			19	Finisher, worsted.	200	208	5	Yes.	56		

a Not reported.

AGE, OCCUPATION, AND EDUCATION OF THE WOMAN, AND ECONOMIC ILY, IN DETAIL, FOR EACH STATE—Continued.

PENNSYLVANIA—Continued.

Membership of family.						Income of family past year.						Total earnings and income past year.	Am't retained by children 16 and over.	Rent past year.	Per capita weekly income of family.	Family number.
Children of ages—				Total.	Total wage earners.	Earnings of—					Other					
						Father.	Mother.	Children—								
Under 10.	10 to 13.	14 and 15.	16 and over.					Under 14.	14 and 15.	16 and over.						
4	1	1	2	10	4	$421	......	......	$48	$601	......	$1,070	......	O.H.	$2.06	163
4	1	1	2	10	4	525	......	......	140	489	......	1,154	......	$108	2.22	164
3	1	1	2	9	4	500	......	......	136	528	......	1,164	$28	84	2.49	165
....	1	....	1	4	2	1,179	......	......	......	24	......	1,203	......	O.H.	5.78	166
2	1	....	1	6	2	443	......	......	......	140	......	583	......	96	1.87	167
....	....	....	1	2	1	......	......	......	......	158	$84	242	......	O.H.	2.33	168
....	....	....	1	3	2	......	$486	......	......	126	......	612	......	72	3.92	169
1	....	....	4	6	3	......	......	......	......	1,349	......	1,349	117	O.H.	4.32	170
1	....	1	1	5	3	604	......	......	30	126	50	810	......	144	3.12	171
....	....	1	4	6	4	......	......	......	148	760	15	923	......	180	2.96	172
6	2	1	1	12	3	960	......	......	152	225	......	1,337	......	168	2.14	173
3	2	....	3	10	4	624	......	......	......	588	......	1,212	148	96	2.33	174
2	2	1	1	8	4	430	......	$52	104	91	......	677	......	60	1.63	175
4	....	....	1	7	2	540	......	......	......	96	5	641	......	O.H.	1.76	176
1	1	1	1	6	3	419	......	......	84	84	......	587	......	60	1.88	177
3	2	2	1	10	4	181	......	......	145	200	......	526	......	66	1.01	178
5	2	2	1	12	4	271	......	......	180	120	......	571	......	72	.92	179
4	....	1	1	8	3	574	......	......	174	280	......	1,028	......	102	2.47	180
2	1	1	1	7	3	392	......	......	36	44	......	472	10	72	1.30	181
4	1	1	2	9	3	......	......	......	90	275	60	425	......	[b] 60	.91	182
....	....	1	1	3	2	......	......	......	115	108	36	259	......	108	1.66	183
....	....	1	1	4	3	270	......	......	40	140	60	510	......	O.H.	2.45	184
3	1	1	3	10	5	364	......	......	102	604	60	1,130	......	O.H.	2.17	185
1	1	....	2	6	3	435	......	......	......	954	......	1,389	......	84	4.45	186
....	1	....	3	6	4	300	......	......	......	710	45	1,055	......	108	3.38	187
1	1	....	3	7	4	450	......	......	......	835	......	1,285	......	108	3.53	188
2	....	....	1	4	2	......	188	......	......	323	......	511	......	72	2.46	189
3	2	....	1	8	2	462	......	......	......	220	90	772	......	84	1.86	190
....	....	....	1	3	2	278	......	......	......	240	5	523	......	36	3.35	191
2	1	....	1	6	2	543	......	......	......	176	......	719	......	78	2.30	192
1	1	....	1	5	3	458	......	......	......	196	91	745	......	O.H.	2.87	193
....	....	....	3	5	3	......	......	......	......	877	......	877	250	O.H.	3.37	194
5	2	1	1	11	4	240	......	116	119	121	73	669	......	O.H.	1.17	195
2	2	1	1	8	2	......	......	......	118	121	55	294	......	O.H.	.71	196
3	....	....	2	7	3	270	......	......	......	482	72	824	......	144	2.26	197
3	....	2	1	8	3	......	......	......	519	220	......	739	......	54	1.78	198
2	1	2	1	7	3	......	......	......	460	260	......	720	......	84	1.98	199
2	....	2	1	6	3	......	208	......	264	117	......	589	58	O.H.	1.89	200
2	1	1	2	8	4	580	......	......	200	487	......	1,267	......	96	3.05	201
1	3	1	4	10	5	......	......	......	230	930	......	1,160	40	132	2.23	202
1	2	1	3	9	5	1,075	......	......	23	401	47	1,546	......	O.H.	3.30	203
2	....	1	4	9	5	112	......	......	232	452	65	861	......	O.H.	1.84	204
1	....	1	2	5	3	......	......	......	250	490	......	740	......	156	2.85	205
3	1	1	3	9	4	......	300	......	324	495	......	1,119	195	108	2.39	206
1	1	1	3	7	4	......	......	......	84	1,060	18	1,162	......	126	3.19	207
....	....	....	2	4	3	......	52	......	......	545	......	597	......	O.H.	2.87	208
3	2	1	2	10	4	594	......	......	117	384	......	1,095	......	156	2.11	209

[b] Estimated value of free rent.

TABLE XXVIII.—SINGLE WOMEN 16 YEARS OF AGE AND OVER AT WORK: CONDITION OF THE WOMAN AND THE FAM

PENNSYLVANIA—Continued.

Family number.	The father.		The single woman.							Membership of family.	
										Occupation or condition of—	
	Race and nativity.	Years in U. S.	Age.	Occupation or industry.	Days worked past year.	Earnings past year.	Years since beginning work.	Can read and write.	Mos. school attendance.	Father.	Mother.
210	German, F.	(a)	17	Unpacker	275	$175	(a)	(a)	(a)	Laborer	Home.
			19	Carry-in	295	175	(a)	(a)	(a)		
			21	Glazer	295	300	(a)	(a)	(a)		
			22	Washer	288	244	(a)	(a)	(a)		
211	German, F.	34	17	Selector	250	188	(a)	(a)	(a)	Dead	Home.
			19	Decorator	265	197	(a)	(a)	(a)		
			23	Decorator	277	231	(a)	(a)	(a)		
212	American		17	Lacquerer	120	120	3	Yes.	42	Blacksmith's helper.	Home.
			20	Wrapper	268	335	7	Yes.	61		
213	American		17	Decorator	290	231	(a)	(a)	(a)	Dead	Home.
			20	Cut-off	272	231	(a)	(a)	(a)		
214	American		17	Clerk, elec. co.	300	625	2	Yes.	56	Dead	Home.
			20	Washer	240	160	1	Yes.	88		
215	English, F.	37	17	Seamstress	300	150	(a)	(a)	(a)	Idle	Home.
			20	Saleswoman, dept. store.	300	350	(a)	(a)	(a)		
216	French, F.	20	17	Sorter	300	200	3	Yes.	50	Incapac.	Home.
			20	Timekeeper	300	350	7	Yes.	60		
217	German, F.	27	17	Floor girl	295	163	(a)	(a)	(a)	Dead	Home.
			20	Decorator	242	205	(a)	(a)	(a)		
218	German, F.	23	17	Glass	295	148	3	Yes.	40	Laborer	Home.
			20	Brush maker	295	250	6	Yes.	48		
219	American		17	Selector	240	120	4	Yes.	58	Laborer	Home.
			21	Storekeeper	236	176	8	Yes.	56		
220	Bohem., F.	24	17	Wiper	42	21	$\frac{2}{12}$	Yes.	72	Miner	Home.
			21	Domestic	280	117	6	Yes.	72		
221	Polish, F.	20	17	Knitter, hosiery	150	75	5	Yes.	48	Laborer	Home.
			21	Knitter, hosiery	200	165	8	Yes.	48		
222	English, N.		17	Sorter	271	171	(a)	(a)	(a)	Carpenter	Home.
			22	Sorter	259	198	(a)	(a)	(a)		
223	American		17	Grinder	240	165	1	Yes.	63	Miner	Home.
			23	Laborer, mine	216	180	9	Yes.	51		
224	German, N.		17	Leertender	225	112	2	Yes.	40	Laborer	Home.
			23	Domestic	25	20	9	Yes.	28		
225	German, F.	18	17	Order girl	290	200	(a)	(a)	(a)	Laborer	Home.
			23	Clerk, warehouse.	300	300	(a)	(a)	(a)		
226	German, F.	15	17	Glass	287	263	3	Yes.	30	Dead	Home.
			24	Glazer	295	383	10	Yes.	30		
227	English, F.	39	17	Leertender	150	104	$\frac{6}{12}$	Yes.	60	Watchman	Home.
228	American		18	Sorter, braid	160	104	4	Yes.	63	Finisher, brass.	Work.
229	American		18	Sorter	257	154	2	Yes.	70	Farmer	Home.
230	American		18	Domestic	330	141	4	Yes.	56	Dead	Home.
231	American		18	Selector	305	312	2	Yes.	54	Dead	Home.
232	American		18	Selector	180	156	3	Yes.	70	Painter	Home.
233	American		18	Selector	240	220	4	Yes.	65	Carpenter	Home.
234	German, N.		18	Glazer	264	240	$2\frac{6}{12}$	Yes.	60	Contractor	Work.
235	German, N.		18	Leertender	225	156	4	Yes.	40	Miner	Home.
236	German, N.		18	Sorter	300	229	(a)	(a)	(a)	Crane man	Home.
237	German, N.		18	Selector	240	160	2	Yes.	72	Foreman	Home.
238	Irish, N.		18	Cut-off	260	198	4	Yes.	50	Laborer	Home.
239	English, F.	20	18	Clerk, store	144	84	$\frac{6}{12}$	Yes.	108	Cutter	Home.
240	English, F.	10	18	Teacher, music.	300	520	$1\frac{2}{12}$	Yes.	70	Tinsmith	Home.
241	English, F.	22	18	Forewoman, laundry.	307	286	5	Yes.	65	Buffer	Home.
242	French, F.	5	18	Decorator	200	183	$3\frac{6}{12}$	Yes.	54	Miner	Dead.
243	German, F.	40	18	Sorter, corks	200	150	1	Yes.	80	Laborer	Home.
244	German, F.	20	18	Packer	250	250	4	Yes.	60	Dead	Work.
245	German, F.	24	18	Wiper	216	120	(a)	(a)	(a)	Fireman	Home.
246	German, F.	30	18	Wrapper	240	240	2	Yes.	70	Machinist	Home.
247	German, F.	24	18	Presser	192	192	3	Yes.	49	Dead	Home.

[a] Not reported.

[b] Including 1 other member.

AGE, OCCUPATION, AND EDUCATION OF THE WOMAN, AND ECONOMIC ILY, IN DETAIL, FOR EACH STATE—Continued.

PENNSYLVANIA—Continued.

Membership of family.						Income of family past year.						Total earnings and income past year.	Am't retained by children 16 and over.	Rent past year.	Per capita weekly income of family.	Family number.
Children of ages—				Total.	Total wage earners.	Earnings of—					Other.					
						Father.	Mother.	Children—								
Under 10.	10 to 13.	14 and 15.	16 and over.					Under 14.	14 and 15.	16 and over.						
....	1	1	4	8	6	$614	....	....	$175	$894	....	$1,683	....	$156	$4.05	210
....	1	....	3	5	3	....	....	....	....	616	....	616	....	96	2.37	211
....	1	1	2	6	3	622	....	....	....	455	$77	1,154	....	348	3.70	212
....	1	....	2	4	2	....	....	....	....	462	50	512	....	120	2.46	213
....	....	....	2	3	2	....	....	....	....	785	....	785	....	120	5.03	214
2	....	1	3	b9	4	....	....	....	78	961	....	1,039	....	O.H.	2.22	215
....	2	....	3	7	3	....	....	....	....	1,000	....	1,000	....	O.H.	2.75	216
1	....	1	4	7	3	....	....	....	....	609	12	621	....	O.H.	1.71	217
....	....	1	2	5	4	425	....	....	45	398	....	868	....	O.H.	3.34	218
2	2	1	2	9	4	320	....	....	181	296	40	837	....	O.H.	1.79	219
4	1	1	3	11	4	330	....	....	143	138	50	661	....	84	1.16	220
....	2	1	4	9	7	315	....	$104	76	940	5	1,440	....	O.H.	3.08	221
1	1	....	3	7	3	780	....	....	....	369	....	1,149	....	192	3.16	222
2	1	1	4	10	4	480	....	....	....	459	....	939	....	102	1.81	223
4	2	1	3	12	5	475	....	....	264	324	....	1,063	....	120	1.70	224
....	....	....	4	6	5	580	....	....	....	931	26	1,537	....	O.H.	4.93	225
....	1	1	2	5	3	....	....	....	273	646	....	919	$230	144	3.53	226
2	....	....	2	6	3	588	....	....	....	254	28	870	52	132	2.79	227
3	2	....	2	9	5	360	$195	168	....	236	....	959	....	216	2.05	228
1	1	1	1	6	2	300	....	....	....	154	55	509	....	111	1.63	229
1	1	1	1	5	2	....	....	....	128	141	324	593	....	c84	2.28	230
1	1	1	2	6	3	....	....	....	100	676	30	806	....	84	2.58	231
2	2	1	1	8	3	450	....	....	172	156	26	804	106	120	1.93	232
4	1	1	1	9	3	600	....	....	17	220	....	837	120	96	1.79	233
....	....	....	1	3	3	840	130	....	....	240	65	1,275	....	264	8.17	234
1	1	....	1	5	2	600	....	....	....	156	....	756	80	O.H.	2.91	235
1	2	....	1	6	2	720	....	....	....	229	....	949	....	76	3.04	236
3	1	1	2	b10	2	1,000	....	....	....	160	....	1,160	....	O.H.	2.23	237
3	....	....	2	7	3	450	....	....	....	503	....	953	....	O.H.	2.62	238
2	1	1	1	7	3	842	....	....	265	84	125	1,316	....	O.H.	3.62	239
2	1	1	2	8	3	875	....	....	121	520	....	1,516	120	O.H.	3.64	240
2	1	1	1	7	3	308	....	....	18	286	....	612	....	150	1.68	241
....	....	1	1	3	3	400	....	....	165	183	150	898	....	O.H.	5.76	242
....	....	1	2	5	3	290	....	....	250	150	....	690	....	O.H.	2.65	243
....	....	1	1	3	2	....	90	....	....	250	57	397	94	96	2.54	244
3	1	1	4	11	5	461	....	....	307	706	....	1,474	....	O.H.	2.58	245
2	....	1	1	6	2	750	....	....	....	240	....	990	....	192	3.17	246
....	1	....	4	6	4	....	....	....	....	1,272	....	1,272	388	216	4.08	247

c Estimated value of free rent.

TABLE XXVIII.—SINGLE WOMEN 16 YEARS OF AGE AND OVER AT WORK: CONDITION OF THE WOMAN AND THE FAM

PENNSYLVANIA—Continued.

Family number.	The father.		The single woman.							Membership of family. Occupation or condition of—	
	Race and nativity.	Years in U. S.	Age.	Occupation or industry.	Days worked past year.	Earnings past year.	Years since beginning work.	Can read and write.	Mos. school attendance.	Father.	Mother.
248	German, F	30	18	Glazer	283	$336	5 2/12	Yes	60	Leersman	Home.
249	German, F	25	18	Selector	290	175	1	Yes	64	Machinist	Home.
250	German, F	17	18	Packer, whisky	125	110	5/12	Yes	58	Molder	Home.
251	Irish, F	20	18	Twister	190	190	4	Yes	63	Dead	Work.
252	Irish, F	20	18	Paper boxes	240	240	6	Yes	42	Dead	Work.
253	Irish, F	20	18	Knitter, hosiery	225	276	4	Yes	40	Laborer	Dead.
254	Polish, F	27	18	Roller, cigars	306	275	5	Yes	72	Laborer	Home.
255	Polish, F	17	18	Corks	120	80	3	Yes	50	Chipper	Home.
256	Polish, F	14	18	Packer	261	189	4	Yes	54	Butcher	Home.
257	Polish, F	17	18	Laundress	180	130	4	Yes	50	Shearer	Home.
258	Polish, F	25	18	Domestic	300	150	3	Yes	40	Laborer	Home.
259	Polish, F	18	18	Glazer	258	235	2 6/12	Yes	27	Laborer	Home.
260	Polish, F	23	18	Operator, moving pictures.	307	416	3	Yes	18	Laborer	Home.
261	Polish, F	17	18	Smoother, cut glass.	242	242	5	Yes	40	Dead	Home.
262	Polish, F	25	18	Sand blaster	289	289	5	Yes	48	Incapac	Home.
263	Polish, F	18	18	Take-off	256	189	4	Yes	33	Furnaceman	Home.
264	Polish, F	28	18	Carton maker	256	186	5	Yes	40	Laborer	Home.
265	Polish, F	25	18	Stamper, metal	282	205	3 6/12	Yes	60	Laborer	Home.
266	Slav, F	21	18	Waxer	238	120	5	Yes	70	Incapac	Home.
267	Slav, F	18	18	Waxer	250	146	3	Yes	40	Coke drawer.	Home.
268	Slav, F	30	18	Selector	300	250	5	Yes	60	Laborer	Home.
269	Slovak, F	20	18	Beveler	232	251	5	Yes	54	Laborer	Home.
270	French, F	4	18	Sorter	250	215	2 4/12	Yes	60	Laborer	Home.
			19	Packer	250	172	2 4/12	Yes	50		
271	American		18	Sorter	250	168	4 11/12	Yes	72	Street supervisor.	Home.
			20	Order clerk	246	205	6 10/12	Yes	63		
272	German, N		18	Saleswoman, flowers.	310	312	4	Yes	60	Dead	Home.
			20	Seamstress	220	165	3 6/12	Yes	60		
273	Irish, N		18	Washer	230	230	3	Yes	64	Dead	Work.
			20	Selector	250	250	5	Yes	64		
274	German, F.	21	18	Decorator	290	270	(b)	(b)	(b)	Laborer	Home.
			20	Clerk, bakery	306	208	(b)	(b)	(b)		
275	German, F.	25	18	Cut-off	295	200	6 6/12	Yes.	50	Laborer	Home.
			20	Order girl	295	250	6 6/12	Yes.	50		
276	Irish, F	25	18	Twister, worsted	167	112	4	Yes.	56	Laborer	Home.
			20	Twister, worsted	167	112	6	Yes.	49		
277	Irish, F	22	18	Operator, telephone.	150	129	(b)	(b)	(b)	Deserter	Home.
			20	Stenographer	42	56	(b)	(b)	(b)		
278	German, F	45	18	Clerk, store	312	208	(b)	(b)	(b)	Dead	Home.
			20	Washer	300	200	(b)	(b)	(b)		
			22	Clerk, grocery	365	100	(b)	(b)	(b)		
279	German. F	(b)	18	Order clerk	260	215	5	Yes.	50	Away	Home.
			20	Sorter	290	290	6	Yes.	60		
			22	Clerk, grocery	290	240	6	Yes.	60		
			23	Decorator	300	250	9 6/12	Yes.	50		
280	German, F	36	18	Sorter	300	300	(b)	(b)	(b)	Dead	Home.
			20	Forewoman, sorters.	300	400	(b)	(b)	(b)		
			24	Forewoman, wipers.	270	240	(b)	(b)	(b)		
281	Polish, F	19	18	Roller, cigars	300	300	4	Yes.	60	Dead	Home.
			21	Cart factory	250	300	6	Yes.	60		
			23	Cart factory	250	300	8	Yes.	60		
282	German, F	25	18	Dressmaker's apprentice.	(b)	(c)	3/12	Yes.	70	Teamster	Home.
			22	Clerk, dept. store	307	364	8	Yes.	68		
283	Polish, F	28	18	Carton maker	255	189	1 7/12	Yes.	33	Incapac	Home.
			23	Interpreter, office.	307	312	4 6/12	Yes.	63		

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a Including 1 other member.

b Not reported.

AGE, OCCUPATION, AND EDUCATION OF THE WOMAN, AND ECONOMIC ILY, IN DETAIL, FOR EACH STATE—Continued.

PENNSYLVANIA—Continued.

Membership of family.						Income of family past year.						Total earnings and income past year.	Am't retained by children 16 and over.	Rent past year.	Per capita weekly income of family.	Family number.
Children of ages—				Total.	Total wage earners.	Earnings of—					Other.					
						Father.	Mother.	Children—								
Under 10.	10 to 13.	14 and 15.	16 and over.					Under 14.	14 and 15.	16 and over.						
1	2	....	2	7	3	$578	......	......	......	$596	......	$1,174	......	O.H.	$3.23	248
1	3	1	4	11	5	400	......	......	......	1,345	$15	1,760	......	O.H.	3.08	249
1	1	1	1	6	3	639	......	......	$25	110	......	774	......	$78	2.48	250
1	2	1	2	7	4	......	$231	......	130	400	......	761	......	60	2.09	251
....	1	1	1	4	3	......	165	......	82	240	......	487	......	30	2.34	252
....	....	1	3	5	4	280	......	......	11	432	......	723	......	150	2.78	253
2	2	1	1	8	3	459	......	......	282	275	96	1,112	......	O.H.	2.67	254
1	....	1	3	7	5	500	......	......	220	880	......	1,600	$200	O.H.	4.40	255
3	2	1	2	10	3	564	......	......	198	189	60	1,011	......	O.H.	1.94	256
2	1	1	4	10	6	450	......	......	200	1,730	......	2,380	940	96	4.58	257
1	1	1	3	8	5	150	......	......	135	1,350	25	1,660	840	108	3.99	258
2	1	1	2	8	4	322	......	......	56	671	......	1,049	......	144	2.52	259
2	2	1	3	10	5	578	......	......	79	1,013	......	1,670	156	144	3.21	260
2	1	1	2	7	3	......	......	......	84	480	20	584	......	84	1.60	261
....	....	1	2	[a]6	2	......	......	......	......	889	......	889	......	84	2.85	262
3	....	....	1	6	2	832	......	......	......	189	84	1,105	......	O.H.	3.54	263
2	1	....	3	8	3	533	......	......	......	697	......	1,230	......	O.H.	2.96	264
....	1	1	3	7	4	371	......	......	......	1,359	96	1,826	......	O.H.	5.02	265
....	....	1	2	5	3	......	......	......	123	384	118	625	......	O.H.	2.40	266
3	2	2	1	10	4	122	......	......	169	146	52	489	......	54	.94	267
1	1	1	2	7	3	270	......	......	......	475	11	756	......	O.H.	2.08	268
1	....	1	1	5	3	153	......	......	115	251	160	679	......	O.H.	2.61	269
....	....	1	3	6	5	221	......	......	216	741	......	1,178	......	O.H.	3.78	270
....	....	1	2	5	4	600	......	......	246	373	170	1,389	......	O.H.	5.34	271
....	1	1	2	5	3	......	......	......	290	477	......	767	......	150	2.95	272
....	1	1	5	8	5	......	200	......	......	1,360	......	1,560	736	168	3.75	273
....	1	....	4	7	5	459	......	......	......	1,115	6	1,580	......	O. H.	4.34	274
....	2	....	2	6	3	432	......	......	......	450	......	882	......	O. H.	2.83	275
....	1	1	3	7	5	396	......	......	159	424	......	979	......	120	2.69	276
3	2	1	4	11	5	......	......	......	15	1,202	......	1,217	194	240	2.13	277
....	....	....	3	4	3	......	......	......	......	508	......	508	......	O. H.	2.44	278
2	1	1	6	11	5	......	......	......	......	1,807	......	1,807	863	120	3.16	279
....	....	1	4	6	4	......	......	......	......	1,740	......	1,740	......	O. H.	5.58	280
1	2	1	4	9	4	......	......	......	204	900	......	1,104	90	180	2.36	281
1	....	1	3	7	4	432	......	......	236	764	......	1,432	364	168	3.93	282
....	....	....	3	5	3	......	......	......	......	890	......	890	......	O. H.	3.42	283

[a] No wages.

TABLE XXVIII.—SINGLE WOMEN 16 YEARS OF AGE AND OVER AT WORK: CONDITION OF THE WOMAN AND THE FAM

PENNSYLVANIA—Continued.

Family number.	The father.		The single woman.							Membership of family. Occupation or condition of—	
	Race and nativity.	Years in U. S.	Age.	Occupation or industry.	Days worked past year.	Earnings past year.	Years since beginning work.	Can read and write.	Mos. school attendance.	Father.	Mother.
284	German, F.	18	18	Wiper	289	$265	(a)	(a)	(a)	Laborer	Home.
			24	Domestic	244	136	(a)	(a)	(a)		
285	English, F.	35	18	Wrapper	284	237	$1\frac{3}{12}$	Yes.	90	Laborer	Home.
			25	Clerk, jewelry	240	200	3	Yes.	72		
286	German, F.	40	18	Operator, telephone.	307	520	3	Yes.	75	Laborer	Home.
			28	Decorator	288	480	11	Yes.	80		
287	American		19	Selector	280	288	2	Yes.	56	Policeman, R. R.	Home.
288	American		19	Sorter	200	200	3	Yes.	64	Tinsmith	Home.
289	American		19	Transferrer	120	120	(a)	Yes.	90	Molder	Home.
290	American		19	Packer, lamps	196	147	$1\frac{1}{12}$	Yes.	90	Paperhanger	Home.
291	American		19	Lacquerer, lamps.	200	240	4	Yes.	45	Laborer	Home.
292	American		19	Clerk, dry goods	280	247	3	Yes.	65	Cooper	Home.
293	American		19	Starcher, laundry.	156	54	1	Yes.	80	Laborer	Work.
294	German, N.		19	Washer	271	312	5	Yes.	54	Fireman	Home.
295	French, F.	14	19	Sorter	80	52	5	Yes.	45	Incapac.	Home.
296	German, F.	28	19	Selector	289	260	5	Yes.	40	Driver	Home.
297	German, F.	26	19	Decorator	300	250	(a)	(a)	(a)	Incapac.	Home.
298	German, F.	17	19	Sorter	280	196	(a)	(a)	(a)	Dead	Home.
299	German, F.	(a)	19	Icing, bakery	274	230	(a)	(a)	(a)	Laborer	Home.
300	Irish, F.	20	19	Washer	287	225	(a)	(a)	(a)	Dead	Home.
301	Irish, F.	35	19	Warper, wool	180	172	4	Yes.	63	Dead	Home.
302	Polish, F.	25	19	Fluter	299	349	4	Yes.	40	Deserter	Home.
303	Polish, F.	16	19	Domestic	104	104	1	Yes.	54	Fireman	Home.
304	Polish, F.	22	19	Roller, tobacco.	250	125	4	Yes.	60	Laborer	Home.
305	Polish, F.	27	19	Stripper, cigar	301	226	4	Yes.	90	Laborer	Home.
306	Polish, F.	28	19	Bolt piler, foundry.	230	198	(a)	(a)	(a)	Idle	Home.
307	Russian, F.	22	19	Paper cards	300	300	4	Yes.	40	Laborer	Home.
308	Slav, F.	18	19	Stamper	200	200	5	Yes.	40	Miner	Home.
309	American		19	Selector	252	168	5	Yes.	72	Laborer	Home.
			20	Order clerk	250	166	4	Yes.	72		
310	French, F.	39	19	Clerk, dry goods	156	120	2	Yes.	80	Carpenter	Home.
			20	Clerk, dry goods	130	60	$\frac{6}{12}$	Yes.	90		
311	Irish, F.	40	19	Operator, telephone.	300	300	4	Yes.	40	Laborer	Home.
			21	Forewoman	295	295	6	Yes.	40		
			23	Brushes	289	300	7	Yes.	30		
312	Slovak, F.	24	19	Storekeeper	(a)	250	5	Yes.	63	Miner	Home.
			21	Domestic	252	108	8	Yes.	63		
313	American		19	Waitress	200	144	5	Yes.	70	Stonecutter	Home.
			22	Waitress	160	104	5	Yes.	70		
314	French, F.	21	19	Washer	35	25	4	Yes.	60	Dead	Home.
			22	Washer	35	25	4	Yes.	64		
315	American		20	Cut-off	264	240	5	Yes.	63	Deserter	Home.
316	American		20	Operator, telephone.	350	350	5	Yes.	64	Dead	Home.
317	American		20	Knitter, hosiery	156	240	5	Yes.	63	Laborer	Dead.
318	American		20	Stainer	307	208	6	Yes.	40	Dead	Home.
319	American		20	Clerk, dry goods	180	130	2	Yes.	70	Driver	Home.
320	German, N.		20	Clerk, post-office.	307	792	3	Yes.	108	Miner	Home.
321	English, F.	19	20	Seamstress	300	130	7	Yes.	60	Mason	Home.
322	English, F.	12	20	Knitter, hosiery	232	232	6	Yes.	56	Chain maker	Home.
323	Flemish, F.	17	20	Cut-off	250	207	7	Yes.	54	Dead	Home.
324	French, F.	17	20	Leertender	275	228	5	Yes.	70	Grinder	Home.
325	German, F.	25	20	Clerk, dry goods	240	120	6	Yes.	72	Dead	Home.
326	German, F.	41	20	Waitress	120	80	5	Yes.	63	Millwright helper.	Home.
327	German, F.	40	20	Seamstress	120	120	$\frac{5}{12}$	Yes.	70	Miner	Home.
328	Polish, F.	54	20	Grinder	295	375	(a)	(a)	(a)	Laborer	Home.

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a Not reported.

b Amount received from sale of real estate.

AGE, OCCUPATION, AND EDUCATION OF THE WOMAN, AND ECONOMIC ILY, IN DETAIL, FOR EACH STATE—Continued.

PENNSYLVANIA—Continued.

Membership of family.						Income of family past year.										
Children of ages—				Total.	Total wage earners.	Earnings of—					Other.	Total earnings and income past year.	Am't retained by children 16 and over.	Rent past year.	Per capita weekly income of family.	Family number.
						Father.	Mother.	Children—								
Under 10.	10 to 13.	14 and 15.	16 and over.					Under 14.	14 and 15.	16 and over.						
....	....	1	3	6	4	$358	......	......	......	$694	....	$1,052	$34	$84	$3.37	284
....	1	1	2	6	4	120	......	......	$40	437	....	597	....	O. H.	1.91	285
....	....	....	5	7	6	396	......	......	......	2,210	....	2,606	....	252	7.16	286
3	1	1	1	8	3	720	......	......	307	288	$30	1,345	141	O. H.	3.23	287
....	....	....	1	3	2	844	......	......	......	200	....	1,044	....	144	6.69	288
4	1	1	2	10	3	800	......	......	......	600	....	1,400	120	O. H.	2.69	289
....	....	....	1	3	2	1,228	......	......	......	147	....	1,375	77	O. H.	8.81	290
1	2	1	2	8	4	40	......	......	23	590	....	653	....	180	1.57	291
3	1	1	1	8	3	840	......	......	225	247	....	1,312	....	100	3.15	292
1	2	1	2	8	5	365	$104	......	209	99	10	787	....	O. H.	1.89	293
1	2	....	1	6	3	610	......	$192	......	312	25	1,139	....	264	3.65	294
....	....	1	1	4	2	......	......	......	66	52	73	191	....	O. H.	.92	295
....	....	....	3	5	4	900	......	......	......	903	....	1,803	....	120	6.93	296
....	....	....	3	5	3	......	......	......	......	741	....	741	....	204	2.85	297
....	....	1	1	3	2	......	......	......	65	196	156	417	....	O. H.	2.67	298
....	1	2	1	6	3	356	......	......	300	230	....	886	....	100	2.84	299
....	....	....	3	4	3	......	......	......	......	813	....	813	....	108	3.91	300
....	1	1	2	5	3	......	......	......	161	333	31	525	....	120	2.02	301
....	....	....	2	3	2	......	......	......	......	725	....	725	....	84	4.65	302
3	1	1	2	9	4	486	......	......	274	458	....	1,218	....	O. H.	2.60	303
....	....	1	1	4	3	200	......	......	80	125	....	405	....	84	1.95	304
2	1	1	1	7	3	77	......	......	52	226	130	485	....	84	1.33	305
1	....	1	4	8	5	......	......	......	300	1,489	84	1,873	....	O. H.	4.50	306
2	1	1	1	7	3	320	......	......	198	300	....	818	....	84	2.25	307
4	1	1	2	10	4	660	......	......	100	470	....	1,230	....	O. H.	2.37	308
2	....	1	3	8	5	300	......	......	180	671	....	1,151	....	144	2.77	309
3	....	2	2	9	5	234	......	......	246	180	3	663	....	O. H.	1.42	310
2	....	1	4	9	5	228	......	......	......	1,319	....	1,547	268	108	3.31	311
1	2	1	3	9	5	722	......	......	217	975	....	1,914	....	O. H.	4.09	312
....	1	1	3	7	5	792	......	......	64	456	94	1,406	126	150	3.86	313
2	1	1	3	8	4	......	......	......	258	480	....	738	....	O. H.	1.77	314
1	....	1	2	5	3	......	......	......	32	515	....	547	....	108	2.10	315
2	1	....	1	5	2	......	......	56	......	350	....	406	....	72	1.56	316
1	1	1	3	7	4	520	......	......	117	447	5	1,089	....	144	2.99	317
2	1	2	2	8	3	......	......	......	41	356	65	462	....	108	1.11	318
4	1	1	3	11	5	450	......	......	60	979	....	1,489	485	O. H.	2.60	319
....	1	1	1	5	3	666	......	......	266	792	....	1,724	....	O. H.	6.63	320
2	2	1	2	9	4	780	......	......	205	196	18	1,199	....	O. H.	2.56	321
1	2	....	3	8	5	456	......	227	......	598	....	1,281	....	168	3.08	322
....	....	....	1	2	1	......	......	......	......	207	b 100	307	....	O. H.	2.95	323
....	....	1	1	4	2	450	......	......	......	228	110	788	....	O. H.	3.79	324
1	1	1	3	7	4	......	......	......	259	345	....	604	....	O. H.	1.66	325
....	1	1	2	6	4	440	......	......	75	360	....	875	130	168	2.80	326
2	2	1	1	c 9	3	600	......	......	120	120	50	890	....	108	1.90	327
....	2	1	2	7	3	375	......	......	......	500	10	885	....	O. H.	2.43	328

c Including 1 other member.

TABLE XXVIII.—SINGLE WOMEN 16 YEARS OF AGE AND OVER AT WORK: CONDITION OF THE WOMAN AND THE FAM

PENNSYLVANIA—Continued.

Family number.	The father.		The single woman.							Membership of family.	
										Occupation or condition of—	
	Race and nativity.	Years in U.S.	Age.	Occupation or industry.	Days worked past year.	Earnings past year.	Years since beginning work.	Can read and write.	Mos. school attendance.	Father.	Mother.
329	Polish, F	16	20	Domestic	240	$140	6	Yes.	70	Miner	Home.
330	English, F	26	20	Sand blaster	245	308	6	Yes.	40	Miner	Home.
331	German, N		20	Decorator	290	250	(a)	(a)	(a)	Dead	Home.
			21	Decorator	290	250	(a)	(a)	(a)		
			25	Order clerk	290	270	(a)	(a)	(a)		
332	German, F	20	20	Laundress	296	197	6	Yes.	70	Dead	Home.
			22	Laundress	308	205	8	Yes.	53		
333	American		20	Selector	45	22	3	Yes.	65	Laborer	Home.
			22	Domestic	355	208	6	Yes.	65		
334	German, N		20	Grinder	216	144	$2\frac{6}{12}$	Yes.	64	Fireman	Home.
			22	Grinder	240	160	$2\frac{6}{12}$	Yes.	48		
335	American		20	Wrapper	288	168	6	Yes.	40	Laborer	Home.
			22	Machine opr., clothing.	294	343	8	Yes.	40		
336	American		21	Sorter	265	218	4	Yes.	56	Dead	Home.
337	American		21	Selector	180	90	7	Yes.	17	Laborer	Home.
338	English, N		21	Waxer	240	220	7	Yes.	63	Dead	Work.
339	German, N		21	Presser	301	350	5	Yes.	63	Laborer	Home.
340	German, N		21	Order clerk	283	450	(a)	(a)	(a)	Laborer	Home.
341	English, N		21	Transferer	240	220	7	Yes.	56	Foreman	Home.
342	French, F	20	21	Chipper	280	280	$7\frac{6}{12}$	Yes.	60	Miner	Dead.
343	German, F	43	21	Domestic	60	30	5	Yes.	60	Laborer	Home.
344	German, F	24	21	Waxer	300	300	$5\frac{4}{12}$	Yes.	72	Washer	Home.
345	German, F	19	21	Clerk	250	375	7	Yes.	70	Dead	Home.
346	Irish, F	20	21	Enameler	240	120	$2\frac{1}{12}$	Yes.	50	Miner	Home.
347	Welsh, F	19	21	Decorator	290	165	7	Yes.	60	Laborer	Home.
348	Welsh, F	20	21	Inspector, lamps	283	283	(a)	(a)	(a)	Laborer	Home.
			23	Decorator	292	386	(a)	(a)	(a)		
349	French, N		21	Grinder	240	120	5	Yes.	90	Dead	Home.
			24	Grinder	48	24	7	Yes.	90		
350	German, N		21	Decorator	289	206	5	Yes.	35	Dead	Home.
			24	Forewoman	295	344	8	Yes.	85		
351	Bohem., F	$\frac{9}{12}$	22	Decorator	75	38	$\frac{3}{12}$	Yes.	78	Laborer	Home.
352	German, F	40	22	Selector	252	168	8	Yes.	63	Dead	Home.
353	German, F	25	22	Selector	295	200	2	Yes.	30	Laborer	Home.
354	Polish, F	20	22	Cut-off	289	194	4	Yes.	50	Laborer	Home.
355	Welsh, F	26	22	Selector	236	197	9	Yes.	72	Janitor	Home.
356	Scand., F	26	22	Seamstress	150	103	6	Yes.	80	Carpenter	Home.
			24	Teacher	234	450	7	Yes.	73		
357	American		22	Saleswoman, dept. store.	307	520	8	Yes.	41	Incapac	Home.
			26	Forewoman	295	590	11	Yes.	55		
358	American		23	Decorator	161	83	(a)	(a)	(a)	Bartender	Home.
359	American		23	Decorator	273	206	(a)	(a)	(a)	Deserter	Work.
360	German, N		23	Stamper	300	300	9	Yes.	70	Deserter	Home.
361	Irish, N		23	Band marker, U.S. Arsenal.	300	300	9	Yes.	70	Painter	Home.
362	German, F	40	23	Decorator	205	204	(a)	(a)	(a)	Incapac	Home.
363	German, F	36	23	Cut-off	295	325	7	Yes.	60	Carpenter	Home.
364	Irish, F	40	23	Transferer	198	231	6	Yes.	72	Laborer	Home.
365	Irish, F	19	23	Presser	234	273	10	Yes.	54	Watchman	Home.
366	Irish, F	22	23	Grinder	242	218	7	Yes.	64	Incapac	Dead.
367	Irish, N		24	Transferer	295	438	11	Yes.	40	Dead	Home.
368	German, F	(a)	24	Sand blaster	312	295	8	No.	20	Dead	Work.
369	German, F	40	24	Washer	295	216	(a)	(a)	(a)	Incapac	Work.
370	Polish, F	(d)	24	Grinder	295	500	6	Yes.	(a)	Dead	Home.
371	Polish, F	16	24	Domestic	330	260	6	Yes.	68	Laborer	Home.
372	German, F	24	24	Waitress	300	250	10	Yes.	60	Idle	Home.
			26	Forewoman	289	500	12	Yes.	60		
373	American		25	Selector	300	225	11	Yes.	56	Incapac	Home.
374	Irish, N		25	Leer tender	240	220	10	Yes.	56	Clerk	Home.
375	German, F	24	25	Sand blaster	224	282	$\frac{8}{12}$	Yes.	30	Dead	Home.

[a] Not reported.

[b] Including 2 other members.

AGE, OCCUPATION, AND EDUCATION OF THE WOMAN, AND ECONOMIC ILY, IN DETAIL, FOR EACH STATE—Continued.

PENNSYLVANIA—Continued.

Membership of family.						Income of family past year.						Total earnings and income past year.	Am't retained by children 16 and over.	Rent past year.	Per capita weekly income of family.	Family number.
Children of ages—				Total.	Total wage earners.	Earnings of—					Other.					
						Father.	Mother.	Children.								
Under 10.	10 to 13.	14 and 15.	16 and over.					Under 14.	14 and 15.	16 and over.						
3	2	1	2	10	4	$252	......	......	$58	$293	......	$603	......	$96	$1.16	329
2	....	1	3	8	3	416	......	......	......	733	$65	1,214	......	O. H.	2.92	330
....	....	....	3	4	3	......	......	......	......	770	......	770	......	O. H.	3.70	331
3	1	1	3	9	4	......	......	......	68	648	40	756	......	O. H.	1.62	332
3	1	1	3	10	4	350	......	......	110	230	......	690	$183	180	1.33	333
1	....	1	3	7	5	561	......	......	474	746	......	1,781	130	192	4.89	334
....	1	1	2	6	4	413	......	......	45	511	2	971	308	144	3.11	335
1	....	....	4	6	4	......	......	......	......	1,235	......	1,235	......	60	3.96	336
....	....	1	4	7	5	215	......	......	100	515	35	865	......	O. H.	2.38	337
1	....	....	4	6	4	......	$104	......	......	1,080	......	1,184	388	108	3.79	338
....	....	1	2	5	4	305	......	......	160	734	......	1,199	318	180	4.61	339
....	....	....	1	3	2	136	......	......	......	450	......	586	......	126	3.76	340
....	....	....	2	4	2	500	......	......	......	220	52	772	......	192	3.71	341
....	....	....	2	3	2	448	......	......	......	280	......	728	......	O. H.	4.67	342
1	1	1	2	7	4	315	......	......	250	118	......	683	......	O. H.	1.88	343
3	1	....	3	9	4	824	......	......	......	1.074	......	1,898	150	135	4.06	344
1	1	....	3	6	3	......	......	......	......	1,343	......	1,343	657	O. H.	4.30	345
....	....	1	4	7	4	333	......	......	......	665	......	998	......	84	2.74	346
....	....	....	2	4	3	675	......	......	......	405	83	1,163	......	264	5.59	347
....	....	1	3	6	4	280	......	......	......	1,033	......	1,313	......	216	4.21	348
1	1	....	4	7	4	......	......	......	......	888	......	888	......	120	2.44	349
....	....	....	2	3	2	......	......	......	......	550	......	550	......	O. H.	3.53	350
....	1	....	2	5	3	252	......	......	......	138	......	390	......	51	1.50	351
....	....	....	1	2	1	......	......	......	......	168	800	968	......	O. H.	9.31	352
....	....	....	1	3	2	435	......	......	......	200	156	791	......	O. H.	5.07	353
1	....	....	1	4	2	425	......	......	......	194	......	619	38	96.	2.98	354
1	2	....	2	7	3	500	......	......	......	365	22	887	......	O.H.	2.44	355
2	1	1	4	10	5	405	......	......	72	1,178	......	1,655	811	O. H.	3.18	356
....	....	....	5	7	3	......	......	......	......	1,245	......	1,245	60	204	3.42	357
1	2	....	1	b 8	2	728	......	......	......	83	......	811	......	132	1.95	358
....	....	....	2	3	3	......	46	......	......	568	......	614	......	102	3.94	359
....	....	1	2	4	3	......	......	......	325	480	160	965	180	216	4.64	360
1	1	1	3	8	5	308	......	......	81	931	......	1,320	344	132	3.17	361
....	....	....	2	4	2	......	......	......	......	804	......	804	482	132	3.87	362
....	....	1	1	4	2	885	......	......	......	325	52	1,262	169	O. H.	6.07	363
....	....	....	3	c 6	3	675	......	......	......	647	......	1,322	335	O. H.	4.24	364
2	2	1	4	11	5	730	......	......	......	1,291	......	2,021	268	O. H.	3.53	365
....	....	....	3	4	1	......	......	......	......	218	156	374	......	60	1.80	366
1	2	....	3	7	2	......	......	......	......	866	......	866	......	O. H.	2.38	367
....	....	....	1	2	2	......	104	......	......	295	15	414	......	96	3.98	368
....	....	....	1	3	2	......	80	......	......	216	......	296	......	60	1.90	369
....	....	....	2	3	2	......	......	......	......	1,010	......	1,010	......	108	6.47	370
1	1	1	2	7	4	450	......	......	50	1,220	......	1,720	840	76	4.73	371
....	....	....	2	4	2	......	......	......	......	750	......	750	......	120	3.61	372
....	....	....	2	4	2	......	......	......	......	585	208	793	121	96	3.81	373
2	2	....	1	7	2	624	......	......	......	220	......	844	......	180	2.32	374
....	....	....	2	3	2	......	......	......	......	990	......	990	......	84	6.35	375

c Including 1 other member.

d Never came to the United States.

TABLE XXVIII.—SINGLE WOMEN 16 YEARS OF AGE AND OVER AT WORK: CONDITION OF THE WOMAN AND THE FAM

PENNSYLVANIA—Concluded.

Family number.	The father.		The single woman.							Membership of family. Occupation or condition of—	
	Race and nativity.	Years in U. S.	Age.	Occupation or industry.	Days worked past year.	Earnings past year.	Years since beginning work.	Can read and write.	Mos. school attendance.	Father.	Mother.
376	German, F	(a)	26	Forewoman, selectors.	300	$375	20	Yes.	30	Dead	Home.
377	German, F	50	26	Forewoman	289	361	10	Yes.	30	Stable boss	Home.
378	Irish, N		30	Decorator	271	368	12	Yes.	90	Laborer	Dead.
379	German, F	55	33	Selector	240	360	22	Yes.	45	Dead	Home.
380	English, F	3	36	Decorator	205	157	26	Yes.	40	Laborer	Home.
381	German, F	40	36	Decorator	295	400	(a)	(a)	(a)	Dead	Home.
382	German, F	52	38	Elevator opr	295	175	(a)	(a)	(a)	Dead	Work.

OHIO.

Family number.	Race and nativity.	Years in U. S.	Age.	Occupation or industry.	Days worked past year.	Earnings past year.	Years since beginning work.	Can read and write.	Mos. school attendance.	Father.	Mother.
1	American		16	Washer	216	$156	$1\frac{6}{12}$	Yes.	36	Laborer	Home.
2	American		16	Selector	208	170	$\frac{8}{12}$	Yes.	80	Dead	Home.
3	American		16	Sorter, gas and elect. goods.	130	83	$\frac{5}{12}$	Yes.	63	Dead	Work.
4	American		16	Sorter	300	250	2	Yes.	70	Painter	Home.
5	American		16	Selector	150	113	$2\frac{3}{12}$	Yes.	70	Deserter	Home.
6	German, N		16	Clerk, restaurant.	365	104	2	Yes.	60	Dead	Work.
7	German, N		16	Domestic	150	65	$\frac{6}{12}$	Yes.	60	Floor hand, engine works.	Home.
8	German, N		16	Operator, telephone.	365	150	1	Yes.	65	Miner	Home.
9	German, N		16	Grinder	240	165	3	Yes.	63	Miner	Home.
10	Irish, N		16	Clerk, store	300	150	3	Yes.	50	Dead	Work.
11	Irish, N		16	Sorter	216	216	$1\frac{6}{12}$	Yes.	72	Tester	Home.
12	Bohem., F	25	16	Domestic	300	150	2	Yes.	85	Laborer	Home.
13	German, F	41	16	Cut-off	300	300	3	Yes.	70	Laborer	Work.
14	German, F	27	16	Ironer, laundry.	200	122	1	Yes.	50	Miner	Home.
15	Irish, F	24	16	Leertender	168	118	$1\frac{2}{12}$	Yes.	54	Leers man	Home.
16	Irish, N		16	Selector	168	112	$\frac{7}{12}$	Yes.	63	Incapac	Home.
			17	Washer	240	200	3	Yes.	72		
17	Welsh, F	15	16	Sorter, tin	290	357	2	Yes.	65	Doubler	Home.
			17	Sorter, tin	290	357	3	Yes.	72		
18	American		16	Grinder	304	255	4	Yes.	50	Dead	Work.
			18	Fluter	208	140	3	Yes.	55		
19	American		16	Selector	240	165	2	Yes.	72	Dead	Home.
			18	Sorter	240	275	3	Yes.	81		
20	Amer., col		16	Domestic	300	315	2	Yes.	45	Laborer	Home.
			18	Domestic	150	170	2	Yes.	40		
21	German, N		16	Selector	240	176	2	Yes.	72	Dead	Home.
			18	Grinder	198	177	4	Yes.	63		
22	German, F	20	16	Sand blaster	270	203	$\frac{3}{12}$	Yes.	69	Fireman	Home.
			18	Sand blaster	270	225	$4\frac{6}{12}$	Yes.	72		
23	American		16	Glazer	200	181	1	Yes.	80	Watchman	Home.
			18	Wrapper	300	206	4	Yes.	80		
			20	Forewoman	300	256	4	Yes.	80		
24	American		16	Sorter	130	88	$\frac{8}{12}$	Yes.	70	Stone mason	Home.
			18	Sorter	130	88	2	Yes.	70		
			20	Beader, enameled ware.	230	287	1	Yes.	90		
25	German, F	20	16	Shoes	300	300	3	Yes.	60	Dead	Home.
			18	Grinder	300	300	5	Yes.	60		
			20	Domestic	365	234	7	Yes.	60		
			23	Domestic	365	260	10	Yes.	60		
26	American		16	Sorter	91	68	$\frac{4}{12}$	Yes.	70	Heater	Home.
			20	Laundry	200	165	7	Yes.	90		
27	American		16	Wiper	304	204	2	Yes.	60	Furnaceman	Home.
			20	Grinder	208	280	5	Yes.	55		

[a] Not reported.

AGE, OCCUPATION, AND EDUCATION OF THE WOMAN, AND ECONOMIC ILY, IN DETAIL, FOR EACH STATE—Continued.

PENNSYLVANIA—Concluded.

Membership of family.						Income of family past year.						Total earnings and income past year.	Am't retained by children 16 and over.	Rent past year.	Per capita weekly income of family.	Family number.
Children of ages—				Total.	Total wage earners.	Earnings of—					Other.					
						Father.	Mother.	Children—								
Under 10.	10 to 13.	14 and 15.	16 and over.					Under 14.	14 and 15.	16 and over.						
....	....	....	1	2	1	......	......	......	......	$375	$180	$555	......	$240	$5.34	376
2	....	....	3	7	4	$468	......	......	......	1,427	......	1,895	$751	192	5.21	377
....	....	....	2	3	2	440	......	......	......	368	......	808	138	276	5.18	378
....	....	....	2	3	2	......	......	......	......	1,260	......	1,260	......	168	8.08	379
....	....	....	2	4	2	525	......	......	......	157	108	790	......	300	3.80	380
....	....	....	1	2	1	......	......	......	......	400	......	400	244	O. H.	3.85	381
....	....	....	3	4	3	......	$32	......	......	1,015	......	1,047	137	144	5.03	382

OHIO.

Under 10.	10 to 13.	14 and 15.	16 and over.	Total.	Total wage earners.	Father.	Mother.	Children under 14.	Children 14 and 15.	Children 16 and over.	Other.	Total earnings and income past year.	Am't retained by children 16 and over.	Rent past year.	Per capita weekly income of family.	Family number.
....	....	....	1	3	2	$534	......	......	......	$156	......	$690	......	$84	$4.42	1
1	1	....	2	5	2	......	......	......	......	370	......	370	......	144	1.42	2
....	....	....	2	3	3	......	$188	......	......	490	......	678	......	84	4.35	3
1	1	....	1	5	2	540	......	......	......	250	......	790	......	144	3.04	4
....	1	....	3	5	3	......	......	......	......	553	......	553	......	96	2.13	5
1	2	1	2	7	4	......	182	......	$93	330	$2	607	......	O. H.	1.67	6
....	1	1	1	5	3	500	......	......	86	65	......	651	......	O. H.	2.50	7
2	1	1	2	8	3	640	......	......	125	150	101	1,016	......	b 96	2.44	8
....	1	1	3	7	4	978	......	......	......	2,243	......	3,221	......	O. H.	8.85	9
2	....	1	1	5	3	......	150	......	112	150	100	512	......	132	1.97	10
....	....	1	1	4	3	821	......	......	13	216	......	1,050	......	150	5.05	11
2	1	1	2	8	4	291	......	......	99	774	......	1,164	......	114	2.80	12
1	1	1	1	6	3	165	200	......	......	300	......	665	......	O. H.	2.13	13
2	1	1	3	9	5	512	......	......	187	874	30	1,603	$372	O. H.	3.43	14
....	....	2	1	5	3	400	......	......	146	118	......	664	......	72	2.55	15
2	....	1	2	7	3	......	......	......	72	312	......	384	......	144	1.05	16
3	1	1	2	9	4	1,200	......	......	15	714	......	1,929	......	108	4.12	17
....	1	1	2	5	4	......	179	......	109	395	......	683	......	132	2.63	18
....	....	1	2	4	3	......	......	......	116	440	......	556	200	120	2.67	19
2	....	1	2	7	4	356	......	......	307	485	50	1,198	......	O.H.	3.29	20
....	....	1	3	5	3	......	......	......	......	1,289	......	1,289	576	72	4.96	21
....	1	....	2	5	3	774	......	......	......	428	......	1,202	......	120	4.62	22
1	2	....	3	8	4	728	......	......	......	643	......	1,371	......	144	3.30	23
1	....	....	4	7	5	570	......	......	......	808	......	1,378	492	108	3.79	24
....	1	1	4	7	5	......	......	......	150	1,094	......	1,244	110	O. H.	3.42	25
....	....	1	3	6	5	704	......	......	78	683	......	1,465	481	108	4.70	26
2	3	....	2	9	3	585	......	......	......	484	......	1,069	......	144	2.28	27

b Estimated value of free rent.

TABLE XXVIII.—SINGLE WOMEN 16 YEARS OF AGE AND OVER AT WORK: CONDITION OF THE WOMAN AND THE FAM

OHIO—Continued.

Family number.	The father.		The single woman.							Membership of family.	
										Occupation or condition of—	
	Race and nativity.	Years in U. S.	Age.	Occupation or industry.	Days worked past year.	Earnings past year.	Years since beginning work.	Can read and write.	Mos. school attendance.	Father.	Mother.
28	American	......	16	Sorter	300	$250	1	Yes.	70	Furnaceman	Home.
			20	Choc. dipper, candy.	300	225	4	Yes.	90		
29	German, F	(a)	16	Sorter	208	165	$\frac{10}{12}$	Yes.	60	Deserter	Home.
			20	Grinder	180	180	$\frac{9}{12}$	Yes.	70		
30	English, F	24	16	Domestic	250	187	$1\frac{6}{12}$	Yes.	48	Dead	Home.
			20	Domestic	300	377	3	Yes.	54		
			29	Domestic	300	156	12	Yes.	60		
31	American	......	16	Sorter	150	150	$\frac{6}{12}$	Yes.	70	Packer	Home.
			21	Clerk, grocery	180	450	7	Yes.	70		
32	American	......	16	Leer tender	240	240	2	Yes.	72	Boss, steel	Home.
			22	Selector	240	300	4	Yes.	108		
33	German, F	16	16	Domestic	300	130	1	Yes.	60	Laborer	Home.
			22	Domestic	300	156	6	Yes.	60		
34	Irish, F	40	16	Sorter	300	250	1	Yes.	80	Idle	Home.
			23	Domestic	365	208	9	Yes.	70		
			26	Domestic	365	195	12	Yes.	70		
			30	Domestic	365	208	15	Yes.	80		
35	American	......	16	Wrapper	120	90	$\frac{5}{12}$	Yes.	65	Laborer	Home.
36	American	......	17	Sorter	290	230	$3\frac{9}{12}$	Yes.	70	Packer	Home.
37	American	......	17	Grinder	72	168	$1\frac{6}{12}$	Yes.	45	Laborer	Home.
38	American	......	17	Selector	216	159	2	Yes.	81	Brakeman	Home.
39	American	......	17	Glazer	300	363	2	Yes.	80	Carpenter	Work.
40	American	......	17	Grinder	240	165	3	Yes.	63	Dead	Home.
41	American	......	17	Clerk, candy	300	142	$1\frac{3}{12}$	Yes.	80	Gas maker	Home.
42	American	......	17	Cut-off	310	390	3	Yes.	70	Laborer	Home.
43	English, N	......	17	Folder, laundry	310	250	$1\frac{3}{12}$	Yes.	70	Dead	Work.
44	German, F	27	17	Glazer	151	162	$\frac{6}{12}$	Yes.	60	Incapac	Home.
45	German, F	37	17	Sorter	240	200	2	Yes.	80	Dead	Home.
46	Pole, F	31	17	Sorter	302	250	3	Yes.	50	Laborer	Home.
47	Scand., F	19	17	Sorter	155	129	1	Yes.	70	Blower	Home.
48	American	......	17	Grinder	240	240	4	Yes.	63	Driver	Home.
			18	Grinder	240	240	5	Yes.	63		
49	German, F	24	17	Grinder	286	336	3	Yes.	60	Brewer	Home.
			18	Grinder	286	384	5	Yes.	60		
50	American	......	17	Selector	224	120	1	Yes.	90	Collector	Home.
			19	Selector	312	165	1	Yes.	80		
51	American	......	17	Clerk, grocery	78	39	$1\frac{6}{12}$	Yes.	60	Metal worker.	Home.
			20	Grinder	304	332	3	Yes.	70		
52	German, F	27	17	Sorter	280	230	2	Yes.	80	Laborer	Home.
			21	Vamper, shoes.	300	300	6	Yes.	80		
53	American	......	17	Sorter	262	182	2	Yes.	70	Presser	Home.
			23	(a)	156	208	7	Yes.	70		
54	American	......	17	Washer	206	144	2	Yes.	70	Fireman	Home.
			24	Washer	208	173	9	Yes.	80		
55	American	......	18	Selector	216	216	$1\frac{2}{12}$	Yes.	81	Carpenter	Home.
56	American	......	18	Grinder	303	303	2	Yes.	60	Laborer	Home.
57	American	......	18	Sorter	312	268	3	Yes.	80	Laborer	Home.
58	German, N.	......	18	Cut-off	216	180	1	Yes.	54	Carpenter	Home.
59	German, N.	......	18	Selector	234	234	$2\frac{9}{12}$	Yes.	100	Laborer	Home.
60	Irish, N	......	18	Chipper	240	324	$2\frac{9}{12}$	Yes.	54	Laborer	Home.
61	Irish, N	......	18	Selector	234	150	$\frac{10}{12}$	Yes.	90	Nut maker	Home.
62	French, F	4	18	Glazer	302	300	$1\frac{6}{12}$	Yes.	70	Blower	Home.
63	German, F	26	18	Grinder	300	325	4	Yes.	70	Coal dealer	Home.
64	German, F	28	18	Operator, telephone.	300	228	3	Yes.	60	Incapac	Home.
65	German, N.	......	18	Cut-off	286	334	3	Yes.	70	Plumber	Home.
			20	Milliner	310	286	3	Yes.	70		
66	German, F	36	18	Cut-off	304	408	4	Yes.	71	Dead	Home.
			20	Cut-off	304	357	4	Yes.	90		
			28	Sorter	156	117	3	Yes.	80		
67	English, F	27	18	Operator, telephone.	200	150	3	Yes.	70	Dead	Home.
			20	Machine operator, laundry.	300	300	7	Yes.	55		
			32	Sorter, laundry.	250	172	14	Yes.	80		

a Not reported.

AGE, OCCUPATION, AND EDUCATION OF THE WOMAN, AND ECONOMIC ILY, IN DETAIL, FOR EACH STATE—Continued.

OHIO—Continued.

Membership of family.						Income of family past year.						Total earnings and income past year.	Am't retained by children 16 and over.	Rent past year.	Per capita weekly income of family.	Family number.
Children of ages—				Total.	Total wage earners.	Earnings of—					Other.					
						Father.	Mother.	Children.								
Under 10.	10 to 13.	14 and 15.	16 and over.					Under 14.	14 and 15.	16 and over.						
....	....	1	3	6	4	$728	......	......	......	$1,225	......	$1,953	......	$168	$6.26	28
....	....	....	2	3	2	......	......	......	......	345	......	345	......	O. H.	2.21	29
....	2	1	3	7	4	......	......	......	$131	720	$5	856	......	84	2.35	30
....	1	....	4	7	5	250	......	......	......	1,390	......	1,640	$590	180	4.51	31
2	....	....	2	6	3	716	......	......	......	540	......	1,256	72	156	4.03	32
1	1	2	2	8	4	150	......	......	218	286	50	704	226	O. H.	1.69	33
....	....	....	5	7	4	......	......	......	......	861	......	861	239	120	2.37	34
2	....	....	2	6	3	455	......	......	......	415	......	870	235	120	2.79	35
3	2	....	1	8	2	675	......	......	......	230	......	905	......	120	2.18	36
....	....	....	1	b 4	2	588	......	......	......	168	96	852	168	156	4.10	37
....	2	1	1	6	2	780	......	......	......	159	......	939	......	96	3.01	38
2	1	1	1	7	4	605	$143	......	306	363	......	1,417	363	168	3.89	39
3	2	1	2	9	3	......	......	......	167	1,065	111	1,343	405	48	2.87	40
3	....	2	3	10	5	300	......	......	14	2,112	......	2,426	1,190	144	4.67	41
3	1	1	1	8	3	496	......	......	163	390	3	1,052	90	120	2.53	42
....	2	1	1	5	3	......	235	......	39	250	......	524	......	168	2.02	43
....	....	....	4	6	4	......	......	......	......	923	......	923	336	O. H.	2.96	44
....	....	1	4	6	5	......	......	......	12	1,790	......	1,802	500	O. H.	5.78	45
....	....	1	5	8	7	510	......	......	300	1,283	......	2,093	913	144	5.03	46
3	2	1	2	10	3	720	......	......	......	849	......	1,569	......	216	3.02	47
....	....	1	2	5	3	528	......	......	......	480	......	1,008	......	120	3.88	48
3	....	2	2	9	4	672	......	......	250	720	36	1,678	......	O. H.	3.59	49
2	1	1	2	8	3	410	......	......	......	285	......	695	......	132	1.67	50
....	....	....	3	5	4	550	......	......	......	1,146	36	1,732	689	O. H.	6.66	51
1	1	1	3	8	4	750	......	......	......	1,130	......	1,880	......	O. H.	4.52	52
....	1	1	4	8	4	880	......	......	......	659	......	1,539	405	180	3.70	53
3	....	1	6	12	6	250	......	......	......	2,559	......	2,809	1,585	156	4.50	54
3	1	....	2	8	3	538	......	......	......	359	40	937	......	102	2.25	55
3	2	1	2	10	3	396	......	......	40	303	5	744	......	O. H.	1.43	56
....	....	1	1	4	3	518	......	......	100	268	8	894	226	120	4.30	57
1	....	1	3	7	3	576	......	......	......	794	......	1,370	354	168	3.76	58
....	....	....	3	5	4	487	......	......	......	1,444	69	2,000	989	216	7.69	59
....	....	....	3	5	3	180	......	......	......	924	146	1,250	250	180	4.81	60
1	1	1	1	6	3	537	......	......	77	150	......	764	75	120	2.45	61
1	....	....	2	5	3	650	......	......	......	500	28	1,178	......	156	4.53	62
2	1	....	1	6	2	750	......	......	......	325	......	1,075	......	O. H.	3.45	63
....	1	1	2	6	2	......	......	......	45	228	200	473	......	O. H.	1.52	64
1	2	1	2	8	4	543	......	......	310	620	......	1,473	273	168	3.54	65
....	....	....	4	5	4	......	......	......	......	1,596	326	1,922	574	192	7.39	66
....	....	1	3	5	4	......	......	......	210	622	......	832	86	144	3.20	67

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b Including 1 other member.

TABLE XXVIII.—SINGLE WOMEN 16 YEARS OF AGE AND OVER AT WORK: CONDITION OF THE WOMAN AND THE FAM

OHIO—Continued.

Family number.	The father.		The single woman.							Membership of family.	
										Occupation or condition of—	
	Race and nativity.	Years in U. S.	Age.	Occupation or industry.	Days worked past year.	Earnings past year.	Years since beginning work.	Can read and write.	Mos. school attendance.	Father.	Mother.
68	American		18	Wrapper	240	$240	4	Yes.	72	Incapac.	Home.
			22	Wrapper	48	69	$\frac{2}{12}$	Yes.	54		
69	French, F.	19	18	Grinder	144	107	$\frac{6}{12}$	Yes.	90	Blower	Home.
			22	Grinder	240	242	$1\frac{6}{12}$	Yes.	90		
70	American		19	Selector	300	250	5	Yes.	70	Deserter	Work.
71	American		19	Sorter	220	133	$1\frac{6}{12}$	Yes.	70	Laborer	Home.
72	American		19	Grinder	295	318	5	Yes.	80	Expressman	Dead.
73	French, F.	3	19	Grinder	303	353	3	Yes.	48	Blower	Home.
74	German, F.	32	19	Seamstress	30	16	$\frac{1}{12}$	Yes.	63	Laborer	Home.
75	American		19	Washer	274	193	3	Yes.	90	Carpenter	Home.
			20	Washer	206	143	5	Yes.	80		
76	German, F.	26	19	Ironer, laundry	125	63	$\frac{5}{12}$	Yes.	70	Dead	Home.
			21	Sorter, laundry	125	63	$\frac{5}{12}$	Yes.	70		
77	American		19	Sorter	300	250	3	Yes.	90	Molder, iron.	Home.
			22	Lining maker, shoes.	300	350	6	Yes.	90		
78	Irish, F.	24	19	Selector	258	193	$2\frac{6}{12}$	Yes.	81	Laborer	Home.
			22	Domestic	156	117	4	Yes.	63		
79	French, F.	25	19	Finisher, coffins	310	310	4	Yes.	52	Laborer	Home.
			23	Laundry	310	325	6	Yes.	72		
80	American		20	Sorter	232	190	$2\frac{1}{12}$	Yes.	90	Separated	Work.
81	German, N.		20	Washer	264	330	4	Yes.	72	Farmer	Home.
82	Irish, N.		20	Sorter	240	220	4	Yes.	72	Dead	Home.
83	American		20	Clerk, confectionery.	174	168	5	Yes.	72	Carpenter	Home.
			22	Cut-off	240	360	5	Yes.	86		
			24	Tailoress	216	216	4	Yes.	90		
			25	Washer	192	192	4	Yes.	90		
84	German, F.	38	20	Teacher	175	405	1	Yes.	108	Idle	Home.
			23	Selector	96	96	8	Yes.	81		
			25	Dipper, enameled ware.	144	144	5	Yes.	72		
			28	Bookkeeper, meat market.	144	108	3	Yes.	72		
85	German, N.		21	Wrapper	24	18	$1\frac{6}{12}$	Yes.	84	Incapac.	Home.
86	German, F.	25	21	Sorter	300	279	6	Yes.	50	Divorced	Work.
87	German, F.	30	21	Grinder	240	182	4	Yes.	90	Incapac.	Home.
88	German, F.	34	21	Glazer	280	276	$4\frac{6}{12}$	Yes.	90	Carpenter	Home.
89	American		21	Sorter	84	56	3	Yes.	80	Packer	Dead.
			23	Sorter	84	56	3	Yes.	80		
90	Irish, F.	36	21	Selector	240	160	6	Yes.	81	Laborer	Home.
			29	Selector	168	112	8	Yes.	24		
91	Irish, F.	46	21	Selector	216	216	7	Yes.	72	Laborer	Home.
92	American		22	Dipper, enameled ware.	120	150	7	Yes.	72	Fireman	Home.
93	Irish, F.	22	22	Selector	240	160	5	Yes.	45	Incapac.	Home.
94	Irish, F.	40	22	Selector	240	180	$4\frac{6}{12}$	Yes.	90	Dead	Home.
95	German, F.	21	23	Shoes	304	332	5	Yes.	70	Dead	Home.
96	English, F.	21	23	Pressman, printing.	300	350	6	Yes.	70	Laborer	Home.
			28	Grinder	240	330	9	Yes.	45		
97	German, N.		24	Selector	240	366	9	Yes.	48	Laborer	Home.
98	German, F.	35	24	Starcher, laundry.	125	125	3	Yes.	65	Miner	Home.
99	Irish, F.	41	24	Selector	240	180	5	Yes.	81	Dead	Home.
100	American		25	Leer tender	96	67	12	Yes.	63	Dead	Home.
			26	Laundress	104	130	1	Yes.	63		
101	Irish, N.		35	Domestic	250	375	20	No.		Incapac.	Home.
102	American		24	Wrapper	240	253	$6\frac{6}{12}$	Yes.	72	Incapac.	Dead.
			52	Seamstress	212	106	(b)	Yes.	54		
			56	Seamstress	212	106	28	Yes.	54		
103	American		25	Selector	285	235	5	Yes.	100	Chain maker	Home.
104	Irish, F.	51	25	Selector	300	300	4	Yes.	90	Dead	Home.
105	German, N.		28	Chipper	252	340	$9\frac{6}{12}$	Yes.	36	Laborer	Dead.

[a] Including 2 other members.

[b] Not reported.

AGE, OCCUPATION, AND EDUCATION OF THE WOMAN, AND ECONOMIC ILY, IN DETAIL, FOR EACH STATE—Continued.

OHIO—Continued.

Membership of family.						Income of family past year.						Total earnings and income past year.	Am't retained by children 16 and over.	Rent past year.	Per capita weekly income of family.	Family number.
Children of ages—				Total.	Total wage earners.	Earnings of—					Other.					
								Children.								
Under 10.	10 to 13.	14 and 15.	16 and over.			Father.	Mother.	Under 14.	14 and 15.	16 and over.						
....	1	1	3	7	4	......	......	......	$242	$621	$353	$1,216	$52	O.H.	$3.34	68
....	1	1	3	7	4	$1,440	......	......	......	1,309	......	2,749	......	$240	7.55	69
....	....	....	2	3	3	......	$147	......	......	850	8	1,005	500	48	6.44	70
1	1	....	2	6	3	348	......	......	......	288	......	636	59	144	2.04	71
....	....	....	2	3	2	330	......	......	......	318	......	648	......	168	4.15	72
....	1	1	1	5	3	1,313	......	......	303	353	18	1,987	......	108	7.64	73
1	1	1	2	7	4	400	......	......	134	401	16	951	85	O.H.	2.61	74
....	....	....	2	4	3	312	......	......	......	336	......	648	96	180	3.12	75
....	1	1	4	7	5	......	......	......	93	651	5	749	191	O.H.	2.06	76
....	....	....	3	5	3	900	......	......	......	600	......	1,500	600	O.H.	5.77	77
2	1	1	4	10	5	288	......	......	......	1,486	......	1,774	250	O.H.	3.41	78
1	1	1	5	10	6	117	......	......	50	1,328	......	1,495	......	O.H.	2.88	79
....	....	....	1	2	2	......	148	......	......	190	......	338	152	60	3.25	80
1	2	1	1	7	2	360	......	......	......	338	......	698	......	120	1.92	81
....	....	....	3	4	3	......	......	......	......	1,632	......	1,632	......	O.H.	7.85	82
....	....	....	4	6	5	360	......	......	......	936	......	1,296	......	84	4.15	83
....	....	....	5	7	5	......	......	......	......	1,509	100	1,609	1,026	O.H.	4.42	84
....	....	....	1	3	1	......	......	......	......	18	195	213	......	O.H.	1.37	85
2	....	1	2	a 8	4	......	125	......	66	512	6	709	137	144	1.70	86
....	....	....	3	5	3	......	......	......	......	1,586	......	1,586	......	O.H.	6.10	87
....	....	....	2	4	3	320	......	......	......	976	......	1,296	400	O.H.	6.23	88
....	....	....	3	4	3	288	......	......	......	112	290	690	......	156	3.32	89
....	....	....	4	6	3	277	......	......	......	272	......	549	......	O.H.	1.76	90
....	1	....	3	6	4	400	......	......	......	938	......	1,338	354	O.H.	4.29	91
....	....	1	3	b 7	5	728	......	......	145	606	......	1,479	200	150	4.06	92
....	....	....	4	6	4	......	......	......	......	1,102	......	1,102	......	144	3.53	93
....	....	....	1	2	1	......	......	......	......	180	......	180	......	O.H.	1.73	94
....	....	1	1	3	2	......	......	......	123	332	25	480	132	O.H.	3.08	95
....	....	....	3	5	4	555	......			980	......	1,535	......	192	5.90	96
....	1	....	4	7	5	416	......	......	......	1,522	......	1,938	464	96	5.32	97
3	1	1	2	9	4	256	......	......	75	300	25	656	......	O.H.	1.40	98
....	....	....	2	3	2	......	......	......	......	456	......	456	......	240	2.92	99
....	....	....	4	5	4	......	......	......	......	563	78	641	......	O.H.	2.47	100
1	....	....	4	7	3	......	......	......	......	1,103	......	1,103	......	96	3.03	101
....	....	....	3	4	3	......	......	......	......	465	......	465	......	120	2.24	102
....	....	....	1	c 4	2	980	......	......	......	235	96	1,311	131	132	6.30	103
....	....	....	3	4	3	......	......	......	......	1,160	......	1,160	444	O.H.	5.58	104
....	....	1	1	3	2	225	......	......	......	340	......	565	......	144	3.62	105

c Including 1 other member.

TABLE XXVIII.—SINGLE WOMEN 16 YEARS OF AGE AND OVER AT WORK: CONDITION OF THE WOMAN AND THE FAM

OHIO—Concluded.

Family number.	The father.		The single woman.							Membership of family.	
										Occupation or condition of—	
	Race and nativity.	Years in U. S.	Age.	Occupation or industry.	Days worked past year.	Earnings past year.	Years since beginning work.	Can read and write.	Mos. school attendance.	Father.	Mother.
106	Irish, F	42	28	Selector	240	$240	4	Yes.	90	Idle	Home.
107	Irish, N	......	30	Grinder	240	320	15	Yes.	50	Dead	Home.
			35	Grinder	240	320	15	Yes.	54		
108	English, F	40	30	Operator, telephone.	313	572	16	Yes.	72	Dead	Home.
109	American	......	40	Selector	240	300	20	Yes.	81	Dead	Dead.
			52	Selector	240	300	15	Yes.	81		

INDIANA.

1	American	......	16	Wrapper	156	$130	3	Yes.	40	Dead	Home.
2	American	......	16	Labeler	205	170	1	Yes.	72	Laborer	Home.
			18	Wrapper	210	175	4	Yes.	63		
3	Scotch, F	24	16	Wrapper, enameled ware.	78	65	$\frac{6}{12}$	Yes.	48	Carry-in	Home.
			18	Wrapper, enameled ware.	260	325	1	Yes.	76		
4	American	......	16	Packer	240	288	1	Yes.	50	Laborer	Home.
			18	Packer	250	250	2	Yes.	60		
			20	Laundry	234	387	2	Yes.	60		
5	American	......	16	Sorter	108	99	2	Yes.	50	Laborer	Home.
			19	Sorter	108	99	4	Yes.	60		
6	American	......	16	Capper	234	137	1	Yes.	45	Dead	Home.
			22	Sorter	234	156	8	Yes.	40		
7	American	......	17	Clerk, dry goods	307	307	3	Yes.	70	Dead	Work.
8	American	......	17	Packer	240	240	2	Yes.	54	Laborer	Home.
9	American	......	17	Capper	234	156	1	Yes.	72	Laborer	Home.
10	American	......	17	Packer	204	170	2	Yes.	50	Leersman	Home.
11	American	......	17	Bundle wrapper, dept. store.	307	104	2	Yes.	80	Ironworker	Home.
12	American	......	17	Clerk, dept. store.	306	255	1	Yes.	60	Laborer	Home.
13	American	......	17	Packer	144	144	2	Yes.	64	Boss, car shop.	Home.
14	American	......	17	Sorter	108	99	3	Yes.	40	Laborer	Home.
15	American	......	17	Stamper, metal.	108	92	2	Yes.	60	Laborer	Home.
16	English, F	25	17	Stamper, metal.	108	81	$\frac{6}{12}$	Yes.	70	Puddler	Home.
17	German, F	27	17	Buttonhole maker, overalls.	216	180	2	Yes.	64	Laborer	Home.
18	Irish, F	30	17	Bookbinder	307	234	1	Yes.	80	Idle	Home.
19	German, F	25	17	Stamper, metal.	90	77	2	Yes.	70	Blacksmith	Dead.
			18	Stamper, metal.	108	92	3	Yes.	80		
20	American	......	17	Stamper, metal.	72	59	1	Yes.	40	Butcher	Home.
			19	Sorter	72	66	5	Yes.	80		
21	American	......	17	Sorter	72	68	$\frac{3}{12}$	Yes.	70	Photographer.	Home.
			20	Sorter	36	36	$\frac{2}{12}$	Yes.	(a)		
22	Irish, F	25	17	Mangle opr., laundry.	306	204	2	Yes.	(b)	Dead	Home.
			20	Ironer, laundry.	306	204	5	Yes.	(b)		
23	American	......	18	Clerk, dept. store.	307	350	2	Yes.	72	Laborer	Home.
24	American	......	18	Clerk, dept. store.	150	125	2	Yes.	70	Clerk	Dead.
25	American	......	18	Waitress	351	250	3	Yes.	63	Laborer	Home.
26	American	......	18	Sorter	108	99	4	Yes.	40	Presser	Home.
27	American	......	18	Laundry	299	299	2	Yes.	75	Dead	Home.
			20	Starcher, laundry.	301	301	5	Yes.	60		
28	American	......	18	Capper	120	90	6	Yes.	70	Dead	Home.
			21	Transferer	120	90	5	Yes.	70		

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[a] Still in school.

[b] Not reported.

AGE, OCCUPATION, AND EDUCATION OF THE WOMAN, AND ECONOMIC ILY, IN DETAIL, FOR EACH STATE—Continued.

OHIO—Concluded.

Membership of family.						Income of family past year.						Total earnings and income past year.	Am't retained by children 16 and over.	Rent past year.	Per capita weekly income of family.	Family number.
Children of ages—				Total.	Total wage earners.	Earnings of—					Other.					
Under 10.	10 to 13.	14 and 15.	16 and over.			Father.	Mother.	Children.								
								Under 14.	14 and 15.	16 and over.						
....	....	....	1	3	1	......	......	......	......	$240	$696	$936	$240	O.H.	$6.00	106
....	....	....	3	4	2	......	......	......	......	640	104	744	......	$240	3.58	107
....	....	1	2	4	2	......	......	......	......	1,082	......	1,082	153	192	5.20	108
....	....	....	3	3	2	......	......	......	......	600	42	642	......	120	4.12	109

INDIANA.

....	2	....	3	6	3	......	......	......	......	$660	......	$660	......	$120	$2.12	1
....	1	....	4	7	5	$300	......	......	......	1,492	$10	1,802	$815	156	4.95	2
....	1	1	2	6	4	269	......	......	$110	390	277	1,046	......	O.H.	3.35	3
3	1	....	3	9	4	405	......	......	......	925	20	1,350	18	144	2.88	4
....	....	1	3	6	5	420	......	......	124	398	......	942	187	O.H.	3.02	5
....	1	....	3	5	3	......	......	......	......	509	......	509	39	48	1.96	6
1	1	1	1	5	3	......	$200	......	192	307	......	699	......	60	2.69	7
....	2	1	2	7	4	364	......	......	130	507	62	1,063	......	120	2.92	8
3	1	1	1	8	3	322	......	......	130	156	6	614	......	60	1.48	9
3	1	3	1	10	5	224	......	......	574	170	48	1,016	......	120	1.95	10
1	2	1	1	7	3	316	......	......	33	104	......	453	......	O.H.	1.24	11
1	1	1	1	6	3	432	......	......	187	255	68	942	......	O.H.	3.02	12
2	1	1	2	8	4	500	......	......	307	525	15	1,347	225	O.H.	3.24	13
1	1	....	2	6	3	338	......	......	......	261	......	599	72	108	1.92	14
1	....	....	2	5	3	450	......	......	......	216	......	666	131	60	2.56	15
1	1	1	1	6	2	1,050	......	......	......	81	......	1,131	81	96	3.63	16
1	1	1	2	7	4	255	......	......	44	468	65	832	132	O.H.	2.29	17
....	2	1	4	9	5	......	......	......	60	1,530	......	1,590	750	O.H.	3.40	18
....	....	....	2	3	3	350	......	......	......	169	20	539	......	O.H.	3.46	19
....	....	....	2	4	3	520	......	......	......	125	......	645	53	96	3.10	20
....	1	....	2	5	3	510	......	......	......	104	......	614	......	144	2.36	21
....	1	1	3	6	4	......	......	......	33	858	......	891	487	96	2.86	22
....	....	1	2	5	4	187	......	......	122	638	[c]1,005	1,952	......	O.H.	7.51	23
....	....	1	4	6	5	510	......	......	261	830	......	1,601	......	180	5.13	24
....	1	1	2	6	4	375	......	......	349	605	......	1,329	392	132	4.26	25
....	....	....	2	4	3	540	......	......	......	226	......	766	......	120	3.68	26
....	1	1	3	6	4	......	......	......	224	831	306	1,361	......	180	4.36	27
....	....	....	2	3	2	......	......	......	......	180	......	180	......	O.H.	1.15	28

[c] Including $1,000 life insurance received.

TABLE XXVIII.—SINGLE WOMEN 16 YEARS OF AGE AND OVER AT WORK: CONDITION OF THE WOMAN AND THE FAM

INDIANA—Concluded.

Family number.	The father.		The single woman.							Membership of family.	
	Race and nativity.	Years in U. S.	Age.	Occupation or industry.	Days worked past year.	Earnings past year.	Years since beginning work.	Can read and write.	Mos. school attendance.	Occupation or condition of— Father.	Occupation or condition of— Mother.
29	American		19	Sleeve maker, overall.	300	$300	3	Yes.	63	Incapac.	Home.
30	Welsh, F	25	19	Wrapper	230	175	5	Yes.	63	Dead	Home.
31	American		20	Domestic	307	130	6	Yes.	30	Laborer	Home.
32	Amer., col.		20	Laundress	208	104	8	Yes.	54	Teamster	Work.
33	American		22	Starcher, laundry.	300	250	6	Yes.	64	Dead	Home.
			24	Wrapper	240	200	8	Yes.	64		
34	American		24	Domestic	156	78	10	Yes.	38	Incapac.	Home.
35	Irish, N		24	Sorter	250	460	10	Yes.	56	Laborer	Home.
36	American		25	Clerk, dept. store.	307	364	10	Yes.	63	Carpenter	Home.

ILLINOIS.

Family number.	Race and nativity.	Years in U. S.	Age.	Occupation or industry.	Days worked past year.	Earnings past year.	Years since beginning work.	Can read and write.	Mos. school attendance.	Father.	Mother.
1	American		16	Coverer, demijohn.	240	$132	2	Yes.	40	Boxmaker	Home.
2	American		16	Sorter	230	198	1	Yes.	80	Foreman, barn.	Home.
3	American		16	Chute girl	234	195	2	Yes.	80	Farmer	Home.
4	Amer., col.		16	Stick-up	241	221	1	Yes.	40	Dead	Home.
5	Amer., col.		16	Snap-up	240	220	9/12	Yes.	70	Teamster	Work.
6	Amer., col.		16	Snap-up	174	121	7/12	Yes.	72	Dead	Work.
7	Amer., col.		16	Snap-up	180	150	2	Yes.	60	Laborer	Home.
8	German, F.	16	16	Chute girl	226	185	1	Yes.	85	Separated	Home.
9	German, F.	23	16	Sorter	240	230	8/12	Yes.	90	Teacher	Home.
10	German, F.	25	16	Domestic	78	29	3/12	Yes.	80	Blower	Home.
11	German, F.	(b)	16	Stenographer, bookbindery.	240	240	10/12	Yes.	80	Dead	Home.
12	Magyar, F.	5	16	Chute girl	156	120	8/12	Yes.	36	Oiler	Home.
13	Slav, F.	20	16	Sorter	192	176	8/12	Yes.	80	Miner	Home.
14	Slav, F.	12	16	Sorter	246	221	1 8/12	Yes.	80	Miner	Home.
15	Slav, F.	30	16	Sorter	192	166	8/12	Yes.	54	Miner	Home.
16	Slav, F.	26	16	Sorter	241	239	1 3/12	Yes.	80	Miner	Home.
17	Slav, F.	28	16	Sorter	144	133	[illegible]/12	Yes.	80	Laborer	Home.
18	Slav, F.	28	16	Sorter	240	180	1	Yes.	39	Miner	Home.
19	American		16	Leer tender	72	54	3/12	Yes.	72	Clerk	Home.
			17	Leer tender	96	72	4/12	Yes.	70		
20	American		16	Leer tender	72	54	5/12	Yes.	80	Laborer	Home.
			17	Beds	204	153	3	Yes.	56		
21	Amer., col.		16	Snap-up	240	220	4	Yes.	54	Truckman	Home.
			17	Snap-up	100	102	2	Yes.	55		
22	German, N.		16	Leer tender	26	18	1	Yes.	56	Section hand	Home.
			16	Chute girl	192	160	3	Yes.	72		
			17	Chute girl	224	187	4	Yes.	72		
23	German, F.	40	16	Chute girl	228	190	2	Yes.	56	Chipper, iron	Home.
			17	Finisher, beds.	246	205	4	Yes.	64		
24	German, F.	20	16	Chute girl	228	190	2	Yes.	63	Driver	Home.
			17	Packer	234	234	3	Yes.	63		
25	German, F.	21	16	Chute girl	246	205	2	Yes.	72	Laborer	Home.
			17	Packer	239	239	3	Yes.	56		
26	American		16	Carton maker	234	140	1	Yes.	60	Laborer	Home.
			18	Carton maker	240	192	4	Yes.	60		
27	French, N.		16	Perforator, shoes.	234	98	1	Yes.	63	Dead	Home.
			18	Closer-on, shoes	234	214	4	Yes.	70		
28	Irish, F.	40	16	Chute girl	168	140	2	Yes.	50	Laborer	Home.
			18	Packer	240	324	4	Yes.	65		
29	Slav, F.	26	16	Domestic	250	208	3	Yes.	70	Miner	Home.
			18	Domestic	240	200	5	Yes.	70		
30	American		16	Coverer, demijohn.	240	140	2	Yes.	60	Laborer	Home.
			20	Carton maker	240	204	2	Yes.	80		

a Including 1 other member.

AGE, OCCUPATION, AND EDUCATION OF THE WOMAN, AND ECONOMIC ILY, IN DETAIL, FOR EACH STATE—Continued.

INDIANA—Concluded.

Membership of family.						Income of family past year.						Total earnings and income past year.	Am't retained by children 16 and over.	Rent past year.	Per capita weekly income of family.	Family number.
Children of ages—				Total.	Total wage earners.	Earnings of—					Other.					
Under 10.	10 to 13.	14 and 15.	16 and over.			Father.	Mother.	Children.								
								Under 14.	14 and 15.	16 and over.						
....	....	1	3	6	4	......	......	......	$80	$1,340	$175	$1,595	$774	$84	$5.11	29
....	2	1	2	6	3	......	......	......	175	475	5	655	......	120	2.10	30
1	1	1	2	7	4	$461	......	......	62	546	......	1,069	208	96	2.94	31
6	2	2	2	14	6	720	$104	......	251	404	369	1,848	134	O.H.	2.54	32
....	....	....	2	3	2	......	......	......	......	450	36	486	......	72	3.12	33
....	....	1	1	4	2	......	......	......	234	78	337	649	......	96	3.12	34
....	....	....	1	3	2	255	......	......	......	460	10	725	330	O.H.	4.65	35
1	2	1	3	9	5	672	......	......	220	750	4	1,646	......	168	3.52	36

ILLINOIS.

1	1	1	1	6	2	$450	......	......	......	$132	......	$582	......	$96	$1.87	1
2	2	1	2	9	3	780	......	......	......	398	......	1,178	......	96	2.52	2
1	2	....	3	8	3	315	......	......	......	345	......	660	......	120	1.59	3
1	1	....	2	5	2	......	......	......	......	559	$10	569	......	108	2.19	4
3	2	....	1	8	3	400	$100	......	......	220	......	720	......	60	1.73	5
....	....	....	1	2	2	......	300	......	......	121	......	421	......	84	4.05	6
1	....	....	1	[a]5	2	420	......	......	......	150	......	570	......	78	2.19	7
1	1	1	2	6	1	......	......	......	......	185	360	545	......	192	1.75	8
....	....	....	1	3	2	840	......	......	......	230	40	1,110	......	O.H.	7.12	9
2	1	1	1	7	3	784	......	......	$242	29	7	1,062	......	132	2.92	10
....	1	1	3	6	4	......	......	......	38	821	153	1,012	$100	O.H.	3.24	11
....	....	....	1	3	2	549	......	......	......	120	5	674	......	96	4.32	12
1	1	1	1	6	2	390	......	......	......	176	50	616	......	O.H.	1.97	13
2	1	1	1	7	2	516	......	......	......	221	81	818	......	O.H.	2.25	14
1	1	....	2	6	3	437	......	......	......	556	94	1,087	......	O.H.	3.48	15
6	2	1	3	14	4	453	......	......	250	689	78	1,470	......	O.H.	2.02	16
4	2	1	2	11	4	240	......	......	122	496	85	943	......	O.H.	1.65	17
1	1	1	1	6	3	437	......	......	218	180	75	910	......	O.H.	2.92	18
....	1	....	3	6	4	336	......	......	......	751	12	1,099	......	O.H.	3.52	19
....	1	....	2	5	3	344	......	......	......	207	......	551	......	O.H.	2.12	20
....	2	1	5	10	5	375	......	......	......	1,034	200	1,609	220	O.H.	3.09	21
3	....	....	5	10	6	320	......	......	......	1,240	......	1,560	654	108	3.00	22
3	2	....	2	9	3	450	......	......	......	395	28	873	......	144	1.87	23
1	2	....	2	7	3	600	......	......	......	424	38	1,062	......	O.H.	2.92	24
1	2	1	2	8	4	44	......	......	144	444	11	643	......	O.H.	1.55	25
2	....	....	3	7	4	375	......	......	......	527	......	902	......	120	2.48	26
3	2	1	2	9	3	......	......	......	118	312	6	436	......	O.H.	.93	27
....	....	....	3	5	4	364	......	......	......	1,008	......	1,372	......	108	5.28	28
....	....	1	3	6	5	68	......	......	151	912	28	1,159	......	O.H.	3.71	29
....	1	....	4	7	5	450	......	......	......	1,244	......	1,694	636	114	4.65	30

[b] Not reported.

TABLE XXVIII.—SINGLE WOMEN 16 YEARS OF AGE AND OVER AT WORK: CONDITION OF THE WOMAN AND THE FAM

ILLINOIS—Continued.

Family number.	The father.		The single woman.							Membership of family. Occupation or condition of—	
	Race and nativity.	Years in U. S.	Age.	Occupation or industry.	Days worked past year.	Earnings past year.	Years since beginning work.	Can read and write.	Mos. school attendance.	Father.	Mother.
31	American		17	Capper	240	$180	3	Yes.	45	Laborer	Home.
32	American		17	Domestic	78	55	$\frac{3}{12}$	Yes.	80	Miner	Home.
33	Amer., col.		17	Snap-up	240	220	2	Yes.	50	Laborer	Work.
34	Amer., col.		17	Stick-up	244	223	2	Yes.	50	Teamster	Home.
35	Amer., col.		17	Stick-up	246	222	2	Yes.	9	Deserter	Work.
36	Amer., col.		17	Snap-up	208	198	2	Yes.	63	Dead	Work.
37	German, N.		17	Ironer, laundry	258	258	4	Yes.	70	Fireman, coal mine.	Home.
38	English, F.	35	17	Stitcher, shoes	250	104	2	Yes.	56	Incapac	Home.
39	Slav, F.	20	17	Mixer, enameled ware.	264	176	3	Yes.	78	Miner	Home.
40	Slav, F.	20	17	Sorter	234	255	2	Yes.	80	Barkeeper	Home.
41	Slav, F.	27	17	Enameled ware	252	168	3	Yes.	63	Laborer	Home.
42	Slav, F.	19	17	Gauger	192	138	$\frac{8}{12}$	Yes.	72	Miner	Home.
43	Slav, F.	20	17	Sorter	242	206	3	Yes.	63	Laborer	Home.
44	German, F.	(a)	17	Packer	240	180	2	Yes.	80	Deserter	Work.
			18	Packer	240	204	4	Yes.	60		
45	German, F.	28	17	Mach. operator, underwear.	310	182	2	Yes.	56	Separated	Home.
			18	Mach. operator, underwear.	156	156	4	Yes.	48		
			27	Starcher, laundry.	260	260	13	Yes.	56		
46	American		17	Packer	240	180	$2\frac{6}{12}$	Yes.	30	Tapper, lead works.	Home.
			19	Packer	240	180	5	Yes.	60		
47	Slav, F.	20	17	Sorter	240	208	$\frac{11}{12}$	Yes.	77	Miner	Home.
			19	Sorter	246	225	$1\frac{6}{12}$	Yes.	73		
48	Irish, F.	50	17	Washer	240	180	2	Yes.	80	Idle	Home.
			20	Coverer, demijohn.	240	240	8	Yes.	50		
49	Irish, F.	25	17	Coverer, demijohn.	252	246	3	Yes.	80	Teamster	Home.
			23	Coverer, demijohn.	252	410	6	Yes.	70		
50	American		17	Operator, telephone.	307	168	$\frac{6}{12}$	Yes.	80	Poultry raiser.	Home.
			23	Operator, telephone.	307	275	8	Yes.	80		
			24	Packer	280	280	9	Yes.	50		
51	Irish, F.	(a)	17	Clerk, clothing	310	312	4	Yes.	60	Dead	Work.
			28	Milliner	156	260	12	Yes.	49		
52	American		18	Sorter	240	240	1	Yes.	63	Laborer	Home.
53	American		18	Carton maker	242	169	2	Yes.	64	Paper carrier.	Home.
54	American		18	Labeler	280	234	$4\frac{6}{12}$	No.		Fireman	Home.
55	American		18	Coverer, demijohn.	280	280	6	Yes.	40	Dead	Work.
56	Amer., col.		18	Laundress	306	179	3	Yes.	80	Dead	Home.
57	Amer., col.		18	Stick-up	220	220	$3\frac{6}{12}$	Yes.	63	Laborer	Work.
58	German, N.		18	Chute girl	156	180	4	Yes.	50	Plumber's helper.	Home.
59	English, F.	20	18	Domestic	52	34	$\frac{2}{12}$	Yes.	60	Miner	Home.
60	English, F.	28	18	Machine opr., powder mill.	264	308	1	Yes.	40	Carry-in	Home.
61	German, F.	30	18	Peddler, milk	365	26	2	Yes.	70	Farmer	Home.
62	German, F.	(a)	18	Capper	240	180	1	Yes.	90	Dead	Work.
63	Slav, F.	23	18	Sorter	170	153	$\frac{7}{12}$	Yes.	70	Miner	Home.
64	Slav, F.	27	18	Sorter	240	210	1	Yes.	80	Miner	Home.
65	Slav, F.	23	18	Sorter	246	246	1	Yes.	79	Miner	Home.
66	Amer., col.		18	Stick-up	243	225	2	Yes.	42	Dead	Home.
			19	Stick-up	238	214	3	Yes.	26		

a Not reported.

AGE, OCCUPATION, AND EDUCATION OF THE WOMAN, AND ECONOMIC ILY, IN DETAIL, FOR EACH STATE—Continued.

ILLINOIS—Continued.

Membership of family.						Income of family past year.						Total earnings and income past year.	Am't retained by children 16 and over.	Rent past year.	Per capita weekly income of family.	Family number.
Children of ages—				Total.	Total wage earners.	Earnings of—					Other.					
						Father.	Mother.	Children.								
Under 10.	10 to 13.	14 and 15.	16 and over.					Under 14.	14 and 15.	16 and over.						
1	2	1	1	7	3	$450	......	......	$192	$180	......	$822	$30	O.H.	$2.26	31
....	....	1	2	5	4	980	......	......	98	1,035	$21	2,134	55	O.H.	8.21	32
....	2	....	1	5	3	350	$150	......	......	220	......	720	......	$108	2.77	33
1	....	....	2	5	3	525	......	......	......	450	......	975	......	96	3.75	34
....	....	....	1	2	2	......	260	......	......	222	......	482	......	101	4.63	35
....	....	....	2	3	3	......	250	......	......	598	......	848	280	78	5.44	36
2	1	1	1	7	3	660	......	......	165	258	44	1,127	......	O.H.	3.10	37
....	1	1	2	6	3	......	......	......	23	404	4	431	......	120	1.38	38
....	1	1	1	5	3	550	......	......	92	176	67	885	......	O.H.	3.40	39
2	2	1	3	10	4	635	......	......	173	705	90	1,603	......	O.H.	3.08	40
1	1	1	1	6	3	291	......	......	58	168	32	549	......	O.H.	1.76	41
3	2	....	1	8	2	544	......	......	......	138	96	778	......	O.H.	1.87	42
2	2	....	2	8	3	600	......	......	......	446	90	1,136	......	O.H.	2.73	43
1	1	....	2	5	3	......	290	......	......	384	40	714	72	96	2.75	44
....	1	2	4	8	6	......	......	......	243	1,118	17	1,378	234	144	3.31	45
3	1	1	4	11	5	653	......	......	......	907	36	1,596	283	180	2.79	46
3	2	1	2	10	4	452	......	......	255	433	65	1,205	......	O.H.	2.32	47
....	....	1	6	9	5	......	......	......	......	1,460	......	1,460	320	120	3.12	48
....	2	1	3	8	4	500	......	......	......	1,234	25	1,759	714	O.H.	4.23	49
....	1	1	5	9	6	300	......	......	......	1,749	15	2,064	807	108	4.41	50
....	....	1	5	7	6	......	138	......	172	2,132	57	2,499	780	168	6.87	51
....	....	....	2	4	3	675	......	......	......	633	20	1,328	......	96	6.38	52
2	2	....	1	7	2	432	......	......	......	169	15	616	......	120	1.69	53
....	....	....	1	3	2	600	......	......	......	234	35	869	104	O.H.	5.57	54
....	....	....	1	2	2	......	240	......	......	280	......	520	......	O.H.	5.00	55
....	....	1	2	4	3	......	......	......	197	629	......	826	......	48	3.97	56
3	....	1	1	7	4	312	63	......	9	220	......	604	......	48	1.66	57
2	....	1	1	6	2	437	......	......	......	180	......	617	......	96	1.98	58
3	....	2	1	8	3	433	......	......	156	34	5	628	34	O.H.	1.51	59
3	1	1	1	8	3	313	......	......	72	308	40	733	......	O.H.	1.76	60
3	1	2	1	9	3	1,000	......	......	135	26	26	1,187	26	200	2.54	61
....	....	....	1	2	2	......	300	......	......	180	200	680	......	96	6.54	62
2	2	....	2	8	3	245	......	......	......	313	128	686	......	O.H.	1.65	63
2	....	1	2	7	4	450	......	......	133	597	72	1,252	......	O.H.	3.44	64
3	3	....	1	9	2	437	......	......	......	246	97	780	......	O.H.	1.67	65
....	1	....	3	5	3	......	......	......	......	999	46	1,045	......	156	4.02	66

TABLE XXVIII.—SINGLE WOMEN 16 YEARS OF AGE AND OVER AT WORK: CONDITION OF THE WOMAN AND THE FAM

ILLINOIS—Concluded.

Family number.	The father.		The single woman.							Membership of family.	
										Occupation or condition of—	
	Race and nativity.	Years in U.S.	Age.	Occupation or industry.	Days worked past year.	Earnings past year.	Years since beginning work.	Can read and write.	Mos. school attendance.	Father.	Mother.
67	American		18	Helper, powder mill.	200	$170	4	Yes.	60	Hod carrier.	Home.
			19	Coverer, demijohn.	250	375	5	Yes.	80		
			21	Helper, powder mill.	200	170	6	Yes.	80		
68	American		19	Wrapper, beds.	180	150	5	Yes.	64	Carpenter	Home.
69	American		19	Packer	243	243	6	Yes.	40	Laborer	Home.
70	German, F.	23	19	Milliner	104	85	5	Yes.	67	Dead	Work.
71	Amer., col.		19	Nurse	302	211	5	Yes.	16	Idle	Home.
			21	Carry-in	242	222	6	Yes.	17		
72	American		20	Leer tender	208	144	$\frac{10}{12}$	Yes.	46	Trackman	Home.
73	English, N.		20	Teacher, music.	52	80	$\frac{2}{12}$	Yes.	90	Blower	Home.
74	Slav, F.	20	20	Sorter	192	161	$\frac{8}{12}$	Yes.	80	Miner	Home.
75	German, F.	40	21	Milliner	310	260	4	Yes.	80	Dead	Home.
			24	Clerk, store	310	442	6	Yes.	110		
			34	Seamstress	156	156	18	Yes.	80		
76	Amer., col.		21	Snap-up	240	180	1	Yes.	72	Dead	Home.
			25	Teacher	234	630	10	Yes.	75		
			29	Teacher	234	324	13	Yes.	80		
77	American		21	Stenographer, printing office.	310	676	$2\frac{8}{12}$	Yes.	110	Dead	Home.
			26	Stenographer, nail mfg.	310	910	4	Yes.	80		
78	Amer., col.		21	Carry-in	202	177	8	Yes.	15	Deserter	Work.
			28	Domestic	300	300	14	Yes.	50		
79	American		22	Domestic	365	156	7	Yes.	81	Dead	Work.
80	Amer., col.		22	Snap-up	240	240	6	Yes.	36	Fireman, railroad.	Home.
81	German, F.	(a)	23	Packer	300	255	6	Yes.	80	Shipping clerk.	Home.
82	American		35	Packer	290	290	17	Yes.	48	Laborer	Home.

WISCONSIN.

Family number.	Race and nativity.	Years in U.S.	Age.	Occupation or industry.	Days worked past year.	Earnings past year.	Years since beginning work.	Can read and write.	Mos. school attendance.	Father.	Mother.
1	German, F.	28	16	Clerk, post-cards.	307	$307	$1\frac{6}{12}$	Yes.	72	Laborer	Home.
2	German, F.	17	16	Knitter, hosiery	12	8	$\frac{1}{12}$	Yes.	48	Laborer	Home.
3	Pole, F.	25	16	Chopper, candy	307	250	1	Yes.	72	Laborer	Home.
4	Pole, F.	27	16	Candy	300	300	2	Yes.	48	Laborer	Home.
5	German, N.		17	Operator, telephone.	365	365	2	Yes.	72	Currier	Home.
6	German, F.	22	17	Clerk, store	72	36	(a)	(a)	(a)	Blower	Home.
7	Pole, F.	30	17	Dipper, candy.	300	200	3	Yes.	63	Laborer	Home.
8	Pole, F.	16	17	Tinware	200	132	3	Yes.	(a)	Laborer	Home.
			20	Tinware	260	184	10	Yes.	(a)		
9	German, F.	15	18	Upholsterer	300	250	3	Yes.	72	Dead	Work.
10	German, F.	20	18	Clerk, post-cards.	300	245	3	Yes.	72	Laborer	Home.
11	Pole, F.	27	18	Knitter, hosiery	240	200	4	Yes.	63	Laborer	Work.
			20	Knitter, hosiery	180	150	6	Yes.	60		
12	Pole, F.	26	19	Knitter, hosiery	280	280	7	Yes.	40	Laborer	Home.
13	German, F.	25	20	Clerk, laundry.	390	275	5	Yes.	72	Dead	Home.
14	Pole, F.	27	20	Helper, hammock factory.	307	225	1	Yes.	(a)	Laborer	Home.

a Not reported.

AGE, OCCUPATION, AND EDUCATION OF THE WOMAN, AND ECONOMIC ILY, IN DETAIL, FOR EACH STATE—Continued.

ILLINOIS—Concluded.

Membership of family.						Income of family past year.						Total earnings and income past year.	Am't retained by children 16 and over.	Rent past year.	Per capita weekly income of family.	Family number.
Children of ages—				Total.	Total wage earners.	Earnings of—					Other.					
								Children.								
Under 10.	10 to 13.	14 and 15.	16 and over.			Father.	Mother.	Under 14.	14 and 15.	16 and over.						
2	2	....	3	9	4	$600	......	......	......	$715	$45	$1,360	$132	O.H.	$2.91	67
4	1	1	1	9	3	325	......	......	$183	150	18	676	....	$96	1.44	68
....	....	....	1	3	2	553	......	......	......	243	32	828	....	O.H.	5.31	69
....	....	1	2	4	4	....	$38	......	156	865	102	1,161	571	O.H.	5.58	70
3	2	....	4	11	3	....	......	......	......	933	12	945	....	O.H.	1.65	71
3	....	....	1	6	2	455	......	......	......	144	....	599	....	96	1.92	72
1	....	1	2	6	4	1,820	......	......	206	262	81	2,369	156	144	7.59	73
....	....	....	1	3	2	524	......	......	......	161	73	758	....	O.H.	4.86	74
....	....	1	5	7	6	....	......	......	195	1,500	31	1,726	953	O.H.	4.74	75
....	....	....	3	4	3	....	......	......	......	1,134	28	1,162	666	O.H.	5.59	76
2	....	1	3	7	4	....	......	......	112	2,516	....	2,628	455	O.H.	7.22	77
....	....	....	3	4	4	....	10	......	......	711	....	721	....	120	3.47	78
....	....	1	3	5	4	....	128	......	208	406	5	747	106	108	2.87	79
....	....	....	1	3	2	464	......	......	......	240	....	704	....	90	4.51	80
....	....	....	3	5	4	525	......	......	......	1,245	42	1,812	569	132	6.97	81
....	....	....	2	4	2	590	......	......	......	290	....	880	....	O.H.	4.23	82

WISCONSIN.

Under 10.	10 to 13.	14 and 15.	16 and over.	Total.	Total wage earners.	Father.	Mother.	Children under 14.	Children 14 and 15.	Children 16 and over.	Other.	Total earnings and income past year.	Am't retained by children 16 and over.	Rent past year.	Per capita weekly income of family.	Family number.
3	1	1	1	8	3	$500	......	......	$278	$307	....	$1,085	....	O.H.	$2.61	1
5	2	1	1	11	3	350	......	......	96	8	....	454	....	$60	.79	2
1	1	2	1	7	4	390	......	......	60	250	....	700	....	84	1.92	3
....	1	1	3	7	3	390	......	......	144	300	$60	894	....	O.H.	2.46	4
1	2	1	1	7	3	540	......	......	300	365	9	1,214	....	60	3.34	5
....	....	1	1	4	3	756	......	......	96	36	90	978	....	156	4.70	6
....	1	1	2	6	4	345	......	......	307	564	....	1,216	$208	78	3.90	7
....	....	1	2	5	4	318	......	......	120	316	....	754	....	60	2.90	8
....	2	1	2	[b] 7	4	....	$225	......	280	675	60	1,240	....	O.H.	3.41	9
3	1	1	2	9	4	504	......	......	96	560	....	1,160	....	O.H.	2.48	10
1	2	1	3	9	5	480	600	......	144	350	....	1,574	....	120	3.36	11
....	1	1	3	7	5	294	......	......	120	875	....	1,289	....	O.H.	3.54	12
....	....	1	1	3	2	....	......	......	134	275	....	409	....	108	2.62	13
1	1	1	2	7	4	288	......	......	96	600	72	1,056	219	O.H.	2.90	14

[b] Including 1 other member.

TABLE XXVIII.—SINGLE WOMEN 16 YEARS OF AGE AND OVER AT WORK: CONDITION OF THE WOMAN AND THE FAM

MISSOURI.

Family number.	The father.		The single woman.							Membership of family.	
										Occupation or condition of—	
	Race and nativity.	Years in U. S.	Age.	Occupation or industry.	Days worked past year.	Earnings past year.	Years since beginning work.	Can read and write.	Mos. school attendance.	Father.	Mother.
1	American		16	Tents and awnings.	300	$251	$1\frac{6}{12}$	Yes.	40	Deserter	Home.
2	Am. col		18	Carry-in	154	154	4	Yes.	40	Dead	Work.
			20	Laundress	60	82	5	Yes.	30		
3	Am. col		22	Washer, laundry.	78	130	2	Yes.	40	Separated	Work.
4	American		25	Carry-in	110	110	16	No.	30	Laborer	Work.

WEST VIRGINIA.

Family number.	Race and nativity.	Years in U. S.	Age.	Occupation or industry.	Days worked past year.	Earnings past year.	Years since beginning work.	Can read and write.	Mos. school attendance.	Father.	Mother.
1	American		16	Fluter	250	$250	2	Yes.	70	Washer	Home.
2	American		16	Selector	168	112	1	Yes.	54	Carpenter	Home.
3	American		16	Sorter, tinplate.	271	282	2	Yes.	54	Laborer	Home.
4	American		16	Dipper, enameled ware.	310	418	$1\frac{6}{12}$	Yes.	42	Laborer	Home.
5	American		16	Domestic	8	10	$\frac{1}{12}$	Yes.	63	Laborer	Home.
6	American		16	Packer	300	270	$1\frac{10}{12}$	Yes.	40	Dead	Home.
7	American		16	Cementer, lamps.	240	168	2	Yes.	56	Deserter	Home.
8	American		16	Wiper	150	115	1	Yes.	45	Miner	Home.
9	American		16	Transferer	150	75	2	Yes.	72	Driver	Home.
10	American		16	Wrapper	280	168	$1\frac{6}{12}$	Yes.	49	Teamster	Home.
11	American		16	Washing	280	184	3	Yes.	54	Incapac	Home.
12	American		16	Cut-off	221	170	$\frac{9}{12}$	Yes.	72	Carpenter	Home.
13	American		16	Cut-off	250	300	4	Yes.	60	Dead	Dead.
14	American		16	Washer	119	89	2	Yes.	81	Laborer	Home.
15	American		16	Lacquerer	275	290	3	Yes.	45	Dead	Work.
16	American		16	Fluter	275	481	$1\frac{6}{12}$	Yes.	80	Miner	Home.
17	American		16	Stamper, tobacco.	206	219	5	Yes.	18	Dead	Work.
18	German, N.		16	Operator, telephone.	300	178	2	Yes.	60	Cooper	Home.
19	German, N.		16	Decorator	150	135	2	Yes.	65	Cornice maker.	Home.
20	German, N.		16	Decorator	250	225	$2\frac{4}{12}$	Yes.	40	Driver	Home.
21	German, N.		16	Waitress	122	111	$\frac{5}{12}$	Yes.	40	Dead	Work.
22	English, F.	29	16	Capper	150	135	$1\frac{9}{12}$	Yes.	40	Miner	Home.
23	German, F.	26	16	Wiper	307	332	3	Yes.	70	Dead	Home.
24	Irish, F.	13	16	Grinder	153	247	2	Yes.	30	Dead	Home.
25	Italian, F.	(c)	16	Packer	225	290	$1\frac{6}{12}$	Yes.	55	Dead	Home.
26	Slovak, F.	21	16	Washer	240	180	$\frac{9}{12}$	No.	6	Laborer	Home.
27	American		16	Wrapper	192	128	$1\frac{3}{12}$	Yes.	56	Laborer	Work.
			17	Wrapper	144	78	$\frac{8}{12}$	Yes.	60		
28	Irish, N.		16	Selector	222	167	$\frac{9}{12}$	Yes.	56	Blower	Home.
			17	Fluter	294	284	$1\frac{6}{12}$	Yes.	90		
29	English, F.	26	16	Selector	156	93	$\frac{6}{12}$	Yes.	63	Supt. mine	Home.
			17	Wrapper	117	70	2	Yes.	63		
30	American		16	Decorator	77	113	1	Yes.	40	Laborer	Dead.
			18	Washer	102	107	$1\frac{3}{12}$	Yes.	48		
31	American		16	Packer	250	225	4	Yes.	45	Dead	Work.
			18	Decorator	250	225	4	Yes.	60		
32	English, N.		16	Sorter	275	275	4	Yes.	42	Deserter	Work.
			18	Sorter	275	275	5	Yes.	50		
33	American		16	Transferer	78	52	$\frac{4}{12}$	Yes.	56	Lumberman	Home.
			18	Beader, enameled ware.	200	200	$1\frac{6}{12}$	Yes.	63		
			21	Dipper, enameled ware.	270	200	4	Yes.	63		

[a] Including 1 other member.

[b] Estimated value of free rent.

AGE, OCCUPATION, AND EDUCATION OF THE WOMAN, AND ECONOMIC ILY, IN DETAIL, FOR EACH STATE—Continued.

MISSOURI.

Membership of family.						Income of family past year.						Total earnings and income past year.	Am't retained by children 16 and over.	Rent past year.	Per capita weekly income of family.	Family number.
Children of ages—				Total.	Total wage earners.	Earnings of—					Other.					
Under 10.	10 to 13.	14 and 15.	16 and over.			Father.	Mother.	Children—								
								Under 14.	14 and 15.	16 and over.						
....	1	....	1	3	2	......	......	$154	......	$251	$104	$509	......	$60	$3.26	1
1	....	....	3	5	4	......	$208	......	......	704	......	912	$312	120	3.51	2
1	....	2	2	6	4	......	299	......	$265	442	......	1,006	21	60	3.22	3
1	....	....	2	5	4	$359	104	......	......	318	......	781	......	120	3.00	4

WEST VIRGINIA.

....	2	1	2	[a] 8	5	$438	......	$500	$250	$250	......	$1,438	......	$144	$3.46	1
1	1	1	1	6	4	240	......	22	66	112	......	440	......	168	1.41	2
3	3	2	1	11	5	268	......	23	281	282	$10	864	......	O.H.	1.51	3
1	2	1	3	9	5	552	......	......	156	1,503	48	2,259	......	O.H.	4.83	4
....	1	1	2	6	4	120	......	......	242	118	......	480	$118	O.H.	1.54	5
....	....	1	1	3	2	......	......	......	304	270	......	574	......	96	3.68	6
....	1	1	1	4	2	......	......	......	72	168	78	318	68	84	1.53	7
1	....	....	1	4	2	512	......	......	......	115	3	630	......	72	3.03	8
2	1	....	1	6	2	315	......	......	......	75	......	390	......	84	1.25	9
....	....	....	1	3	2	429	......	......	......	168	......	597	......	100	3.83	10
....	....	....	4	6	3	......	......	......	......	757	16	773	......	111	2.48	11
1	....	1	2	6	3	490	......	......	......	1,070	......	1,560	710	96	5.00	12
....	....	....	4	4	3	......	......	......	......	1,553	48	1,601	196	O.H.	7.70	13
....	1	....	2	5	3	329	......	......	......	491	......	820	283	48	3.15	14
....	2	....	1	4	2	......	$187	......	......	290	......	477	......	O.H.	2.29	15
2	2	1	1	8	3	375	......	......	275	481	25	1,156	......	72	2.78	16
....	1	1	1	4	3	......	156	......	165	219	3	543	......	60	2.61	17
3	2	....	1	8	3	500	......	275	......	178	3	956	178	108	2.30	18
3	....	1	1	7	2	612	......	......	......	135	3	750	......	162	2.06	19
2	2	2	1	9	4	576	......	......	153	225	24	978	53	O.H.	2.09	20
....	1	....	1	3	3	......	72	231	......	111	156	570	3	60	3.65	21
....	2	1	1	6	2	350	......	......	......	135	60	545	......	[b] 60	1.75	22
....	1	1	1	4	3	......	......	115	332	332	......	779	......	72	3.75	23
....	....	1	2	4	3	......	......	......	216	663	17	896	195	120	4.31	24
2	....	1	1	5	2	......	......	......	90	290	160	540	......	O.H.	2.08	25
4	2	1	1	10	5	240	......	96	78	180	......	594	......	60	1.14	26
....	1	1	2	6	5	158	240	......	84	206,	2	690	......	72	2.21	27
....	1	....	2	5	3	815	......	......	......	451	......	1,266	......	156	4.87	28
2	1	....	4	9	5	819	......	......	......	1,147	......	1,966	163	180	4.20	29
2	3	1	2	9	7	432	......	369	222	220	......	1,243	......	120	2.66	30
2	....	....	2	5	3	......	365	......	......	450	......	815	......	O.H.	3.13	31
1	....	1	2	5	4	......	75	......	262	550	......	887	......	84	3.41	32
1	1	....	4	8	5	675	......	......	......	725	15	1,415	528	O.H.	3.40	33

[c] Not reported.

TABLE XXVIII.—SINGLE WOMEN 16 YEARS OF AGE AND OVER AT WORK: CONDITION OF THE WOMAN AND THE FAM

WEST VIRGINIA—Continued.

Family number.	The father.		The single woman.							Membership of family. Occupation or condition of—	
	Race and nativity.	Years in U.S.	Age.	Occupation or industry.	Days worked past year.	Earnings past year.	Years since beginning work.	Can read and write.	Mos. school attendance.	Father.	Mother.
34	American		16	Transferer	288	$216	5	Yes.	63	Dead	Home.
			19	Washer	288	216	2	Yes.	54		
35	American		16	Stamper, metal.	240	240	2	Yes.	63	Dead	Home.
			19	Stamper, metal.	252	259	3	Yes.	72		
36	American		16	Clerk, dry goods	192	144	$\frac{2}{12}$	Yes.	79	Dead	Home.
			21	Grinder	240	168	6	Yes.	56		
37	German, N.		16	Wrapper	60	45	$\frac{2}{12}$	Yes.	51	Dead	Home.
			22	Grinder	204	238	6	Yes.	51		
			33	Glazer	204	204	15	Yes.	40		
38	English, F.	59	16	Etcher, needle.	250	188	$1\frac{2}{12}$	Yes.	40	Laborer	Home.
			35	Etcher, needle.	250	209	13	Yes.	60		
39	American		17	Chipper	300	300	$2\frac{6}{12}$	Yes.	65	Engineer	Home.
40	American		17	Decorator	250	305	$1\frac{6}{12}$	Yes.	65	Tinsmith	Home.
41	American		17	Sorter	200	150	5	Yes.	30	Laborer	Home.
42	American		17	Selector	270	157	3	Yes.	63	Miner	Home.
43	American		17	Wrapper	156	38	2	Yes.	72	Carpenter	Home.
44	American		17	Sand blaster	282	188	$3\frac{7}{12}$	Yes.	63	Blacksmith.	Home.
45	American		17	Wrapper	298	248	$6\frac{6}{12}$	Yes.	50	Deserter	Home.
46	American		17	Dipper, enameled ware.	155	170	5	Yes.	30	Laborer	Home.
47	American		17	Clerk, confectionery.	72	54	5	Yes.	54	Heater's helper.	Work.
48	American		17	Shearer, tin	144	90	2	Yes.	36	Fireman	Home.
49	American		17	Waitress	162	54	2	Yes.	(*a*)	Dead	Work.
50	American		17	Decorator	264	238	2	Yes.	63	Deserter	Work.
51	Irish, N.		17	Cut-off	234	212	$1\frac{2}{12}$	Yes.	50	Plumber	Home.
52	German, F.	22	17	Stemmer, tobacco.	216	216	3	Yes.	45	Brewery hand.	Home.
53	German, F.	40	17	Picker, tobacco.	144	112	5	Yes.	54	Laborer	Home.
54	German, F.	30	17	Grinder	275	275	$1\frac{4}{12}$	Yes.	65	Mold maker.	Home.
55	Irish, F.	40	17	Cut-off	216	382	3	Yes.	63	Deserter	Work.
56	English, F.	25	17	Wrapper	49	29	$\frac{2}{12}$	Yes.	64	Laborer	Home.
57	Slav, F.	25	17	Waxer	300	225	3	Yes.	70	Miner	Home.
58	American		17	Timekeeper, enameled ware.	294	220	1	Yes.	72	Finisher	Home.
			18	Beader, enameled ware.	294	294	5	Yes.	63		
59	American		17	Domestic	200	100	3	Yes.	56	Miner	Home.
			19	Grinder	275	344	3	Yes.	56		
60	German, F.	26	17	Order clerk	276	207	3	Yes.	63	Decorator	Work.
			19	Wrapper	276	184	3	Yes.	72		
61	Irish, F.	19	17	Packer, preserved fruits.	240	216	3	Yes.	72	Laborer	Home.
			19	Packer, preserved fruits.	240	216	5	Yes.	72		
62	Irish, F.	39	17	Stamper, enameled ware.	264	264	2	Yes.	(*a*)	Incapac	Home.
			20	Stamper, enameled ware.	264	264	4	Yes.	36		
			24	Stamper, enameled ware.	264	264	5	Yes.	72		
63	German, F.	37	17	Wrapper	240	160	$3\frac{6}{12}$	Yes.	54	Dead	Home.
			22	Wrapper	240	180	7	Yes.	54		
64	Irish, F.	(*a*)	17	Helper, laundry	240	160	4	Yes.	54	Dead	Home.
			23	Helper, laundry	300	156	9	Yes.	72		
65	American		18	Fitter, lamps	268	228	$\frac{11}{12}$	Yes.	90	Brick burner	Home.
66	American		18	Decorator	192	173	4	Yes.	72	Incapac	Home.
67	American		18	Cut-off	282	428	6	Yes.	48	Farmer	Home.
68	American		18	Domestic	300	100	(*a*)	Yes.	70	Blacksmith.	Home.
69	American		18	Capper	200	170	3	Yes.	60	Miner	Dead.
70	American		18	Lacquerer	275	247	3	Yes.	40	Laborer	Work.
71	American		18	Selector	300	225	1	Yes.	49	Mixer	Home.

a Not reported.

AGE, OCCUPATION, AND EDUCATION OF THE WOMAN, AND ECONOMIC ILY, IN DETAIL, FOR EACH STATE—Continued.

WEST VIRGINIA—Continued.

Membership of family.						Income of family past year.						Total earnings and income past year.	Am't retained by children 16 and over.	Rent past year.	Per capita weekly income of family.	Family number.
Children of ages—				Total.	Total wage earners.	Earnings of—					Other.					
Under 10.	10 to 13.	14 and 15.	16 and over.			Father.	Mother.	Children—								
								Under 14.	14 and 15.	16 and over.						
....	....	....	3	4	3	......	......	......	......	$1,056	......	$1,056	......	$96	$5.08	34
....	1	1	3	6	5	......	......	$66	$180	908	......	1,154	$149	120	3.70	35
....	....	....	3	4	3	......	......	......	......	732	......	732	160	O.H.	3.52	36
....	....	....	5	6	4	......	......	......	......	911	$18	929	......	156	2.98	37
....	1	....	5	8	6	$330	......	......	......	2,272	27	2,629	1,095	108	6.32	38
3	1	....	1	7	2	858	......	......	......	300	......	1,158	......	O.H.	3.18	39
2	....	....	1	5	2	675	......	......	......	305	......	980	......	150	3.77	40
....	....	....	2	4	3	438	......	......	......	450	......	888	100	144	4.27	41
....	....	....	2	4	3	520	......	......	......	439	......	959	255	78	4.61	42
....	....	1	2	5	3	1,125	......	......	......	318	125	1,568	318	O.H.	6.03	43
3	1	2	1	9	2	116	......	......	......	188	......	304	......	192	.65	44
....	....	....	1	2	1	......	......	......	......	248	25	273	......	90	2.63	45
1	1	1	4	9	6	390	......	......	47	1,109	......	1,546	731	O.H.	3.30	46
....	1	1	1	5	5	288	$260	17	154	54	......	773	......	144	2.97	47
6	1	1	3	13	4	891	......	......	96	306	......	1,293	......	108	1.91	48
....	....	1	1	3	3	......	312	......	13	54	60	439	......	60	2.81	49
1	1	1	1	b6	3	......	138	......	84	238	......	460	......	O.H.	1.47	50
1	1	1	2	7	4	350	......	......	264	602	35	1,251	202	120	3.44	51
....	1	1	2	6	4	950	......	......	158	518	......	1,624	......	O.H.	5.21	52
....	....	1	1	4	3	600	......	......	357	112	96	1,165	......	O.H.	5.60	53
2	1	....	2	7	3	990	......	......	......	425	36	1,451	50	240	3.99	54
....	....	....	4	5	4	......	750	......	......	1,499	......	2,249	837	144	8.65	55
1	1	1	2	7	3	381	......	......	88	29	......	498	13	180	1.37	56
2	1	2	4	11	7	585	......	......	328	1,980	......	2,893	......	120	5.06	57
3	2	1	3	11	5	750	......	58	300	514	6	1,628	294	O.H.	2.85	58
1	1	2	2	8	3	625	......	......	......	444	......	1,069	194	72	2.57	59
....	....	1	3	6	5	468	26	......	......	911	27	1,432	587	120	4.59	60
1	1	1	2	7	4	336	......	......	110	432	......	878	120	108	2.41	61
1	2	1	5	11	6	......	......	......	33	1,467	......	1,500	242	O.H.	2.62	62
2	1	1	4	9	4	......	......	......	104	964	......	1,068	......	O.H.	2.28	63
....	....	1	2	4	3	......	......	......	154	316	......	470	......	96	2.26	64
....	....	....	1	3	2	555	......	......	......	228	......	783	128	144	5.02	65
....	1	1	1	5	2	......	......	......	43	173	6	222	......	132	.85	66
....	....	1	3	6	4	150	......	......	210	878	......	1,238	611	96	3.97	67
....	1	1	1	5	3	600	......	......	99	100	......	799	100	150	3.07	68
....	....	1	2	4	3	750	......	......	600	170	......	1,520	......	72	7.31	69
4	1	1	2	10	6	225	50	216	67	483	2	1,043	......	120	2.01	70
1	2	1	3	9	4	600	......	......	264	489	......	1,353	339	180	2.89	71

[b] Including 1 other member.

TABLE XXVIII.—SINGLE WOMEN 16 YEARS OF AGE AND OVER AT WORK: CONDITION OF THE WOMAN AND THE FAM

WEST VIRGINIA—Continued.

Family number.	The father.		The single woman.							Membership of family.	
	Race and nativity.	Years in U. S.	Age.	Occupation or industry.	Days worked past year.	Earnings past year.	Years since beginning work.	Can read and write.	Mos. school attendance.	Occupation or condition of— Father.	Occupation or condition of— Mother.
72	American		18	Dipper	96	$152	4	Yes.	63	Blacksmith	Home.
73	American		18	Capper	280	267	6	Yes.	25	Deserter	Home.
74	American		18	Decorator	250	312	4	Yes.	56	Pipe layer	Home.
75	German, N.		18	Laborer, pottery.	180	210	3	Yes.	72	Roller	Home.
76	French, F.	30	18	Selector	300	368	1	Yes.	63	Presser	Work.
77	German, F.	4	18	Fluter	290	319	4	Yes.	90	Gatherer	Home.
78	Irish, F.	40	18	Decorator	264	330	5	Yes.	54	Dead	Home.
79	American		18	Capper	100	125	$\frac{5}{12}$	Yes.	20	Laborer	Home.
			19	Capper	100	125	3	Yes.	25		
			22	Grinder	125	115	4	Yes.	20		
80	American		18	Dipper, enameled ware.	300	375	1	Yes.	100	Idle	Home.
			20	Dipper, enameled ware.	300	375	1	Yes.	90		
81	American		18	Dipper	307	281	3	Yes.	75	Blower	Home.
			20	Etcher, needle	290	338	2	Yes.	80		
82	German, F.	50	18	Grinder	307	370	5	Yes.	60	Dead	Home.
			20	Cut-off	307	485	7	Yes.	72		
			21	Grinder	307	357	$7\frac{3}{12}$	Yes.	72		
83	Irish, N.		18	Operator, telephone.	204	144	$\frac{11}{12}$	Yes.	48	Incapac	Home.
			20	Etcher, needle	102	105	3	Yes.	54		
			24	Grinder	295	400	3	Yes.	78		
84	Irish, N.		18	Selector	300	207	2	Yes.	64	Stonemason	Home.
			22	Roller, cigar	300	300	6	Yes.	24		
85	American		18	Fluter	307	327	(a)	(a)	(a)	Idle	Home.
			23	Fluter	307	359	(a)	(a)	(a)		
86	American		19	Cut-off	284	336	$\frac{11}{12}$	Yes.	50	Car builder	Home.
87	American		19	Fluter	300	350	3	Yes.	45	Dead	Home.
88	American		19	Beader, enameled ware.	234	234	4	Yes.	72	Guard, penitentiary.	Home.
89	American		19	Wiper	295	225	3	Yes.	50	Carry-in	Home.
90	American		19	Capper	300	330	3	Yes.	60	Stamper	Home.
91	American		19	Waxer	310	310	3	Yes.	48	Leersman	Home.
92	German, N.		19	Mold cleaner	216	172	5	Yes.	54	Laborer	Home.
93	Bohem., F.	14	19	Selector	283	33	6	Yes.	70	Grinder	Home.
94	German, F.	35	19	Cut-off	168	237	$3\frac{6}{12}$	Yes.	(a)	Dyer	Home.
95	German, F.	33	19	Decorator	252	227	2	Yes.	63	Laborer	Home.
96	French, F.	10	19	Sand blaster	84	91	$\frac{3}{12}$	Yes.	40	Grinder	Home.
			21	Etcher, needle	56	45	$\frac{2}{12}$	Yes.	50		
97	French, F.	19	19	Grinder	156	216	$\frac{6}{12}$	Yes.	80	Blacksmith	Home.
			21	Grinder	91	98	$\frac{4}{12}$	Yes.	88		
			24	Seamstress	78	78	7	Yes.	80		
98	American		19	Bag marker, tobacco.	300	500	4	Yes.	81	Dead	Home.
			23	Clerk, shoes	216	252	6	Yes.	99		
99	English, F.	25	19	Grinder	307	300	6	Yes.	60	Divorced	Work.
			23	Stenographer	307	500	(a)	(a)	(a)		
100	American		19	Decorator	153	230	$\frac{6}{12}$	Yes.	80	Miner	Home.
			26	Decorator	153	235	$\frac{6}{12}$	Yes.	79		
101	American		19	Etcher, needle	144	120	$\frac{7}{12}$	No.		Dead	Home.
			35	Ironer, laundry	300	324	21	No.	9		
102	American		20	Grinder	150	135	3	Yes.	50	Leersman	Home.
103	American		20	Capper	250	200	$2\frac{9}{12}$	Yes.	72	Laborer	Home.
104	American		20	Pay clerk	144	240	$3\frac{3}{4}$	Yes.	70	Dead	Home.
105	German, N.		20	Crack-off	307	307	4	Yes.	50	Incapac	Home.
106	German, F.	18	20	Seamstress	(a)	50	7	Yes.	54	Dead	Home.
107	Irish, F.	55	20	Selector	300	300	$4\frac{6}{12}$	Yes.	54	Incapac	Home.

[a] Not reported.

AGE, OCCUPATION, AND EDUCATION OF THE WOMAN, AND ECONOMIC ILY, IN DETAIL, FOR EACH STATE—Continued.

WEST VIRGINIA—Continued.

Membership of family.						[a] Income of family past year.						Total earnings and income past year.	Am't retained by children 16 and over.	Rent past year.	Per capita weekly income of family.	Family number.
Children of ages—				Total.	Total wage earners.	Earnings of—					Other.					
Under 10.	10 to 13.	14 and 15.	16 and over.			Father.	Mother.	Children—								
								Under 14.	14 and 15.	16 and over.						
4	1	1	2	10	4	$612	......	......	$30	$416	......	$1,058	......	O.H.	$2.03	72
2	1	1	1	6	2	......	......	......	268	267	......	535	......	$84	1.71	73
1	1	1	1	6	3	400	......	......	312	312	$5	1,029	......	114	3.30	74
1	1	1	1	6	3	1,200	......	......	35	210	......	1,445	......	240	4.63	75
....	1	1	2	6	4	903	$260	......	......	689	......	1,852	......	156	5.94	76
1	....	....	1	4	2	866	......	......	......	319	27	1,212	......	120	5.83	77
....	....	....	2	3	2	......	......	......	......	666	......	666	$76	120	4.27	78
1	....	....	3	6	4	435	......	......	......	365	......	800	......	120	2.56	79
5	1	2	2	12	4	......	......	......	569	750	20	1,339	......	150	2.15	80
1	1	1	4	9	7	548	......	$18	134	1,459	50	2,209	......	156	4.72	81
....	1	....	3	5	3	......	......	......	......	1,212	......	1,212	37	150	4.66	82
....	....	1	4	7	3	......	......	......	......	649	459	1,108	649	270	3.04	83
1	1	1	2	7	3	572	......	......	......	507	25	1,104	327	96	3.03	84
....	....	1	5	8	4	......	......	......	66	1,424	54	1,544	1,008	O.H.	3.71	85
1	1	....	2	6	3	566	......	......	......	866	......	1,432	290	120	4.59	86
....	....	1	2	4	2	......	......	......	......	1,000	......	1,000	250	120	4.81	87
1	1	1	1	6	3	900	......	......	194	234	......	1,328	156	120	4.26	88
1	....	1	1	5	3	430	......	......	99	225	......	754	......	O.H.	2.90	89
1	2	1	2	8	4	500	......	......	78	880	......	1,458	342	120	3.50	90
1	....	2	2	7	5	450	......	......	720	670	......	1,840	232	120	5.05	91
3	2	1	3	11	4	306	......	......	......	474	......	780	......	132	1.36	92
....	1	1	3	7	4	753	......	......	......	862	5	1,620	......	162	4.45	93
....	1	2	2	7	4	414	......	......	209	517	......	1,140	......	O.H.	3.13	94
....	1	1	2	6	4	324	......	......	96	627	......	1,047	......	102	3.36	95
2	....	....	3	7	4	598	......	......	......	526	56	1,180	......	180	3.24	96
1	1	....	4	8	4	620	......	......	......	392	......	1,012	321	O.H.	2.43	97
....	....	1	3	5	3	......	......	......	145	752	......	897	336	O.H.	3.45	98
....	....	....	1	[b] 4	3	......	200	......	......	800	......	1,000	500	O.H.	4.81	99
....	1	1	4	8	5	306	......	......	......	1,441	70	1.817	......	O.H.	4.37	100
....	....	....	5	6	4	......	......	......	......	1,186	103	1,289	222	72	4.13	101
....	....	....	1	3	2	225	......	......	......	135	10	370	......	72	2.37	102
3	....	1	1	7	3	200	......	......	211	200	......	611	100	O.H.	1.68	103
....	....	1	1	3	2	......	......	......	221	240	40	501	......	120	3.21	104
....	....	....	4	6	4	......	......	......	......	1,575	20	1,595	425	228	5.11	105
1	1	1	3	7	4	......	......	......	314	530	72	916	50	O.H.	2.52	106
....	....	1	2	5	3	......	......	......	120	1.175	......	1,295	125	168	4.98	107

[b] Including 2 other members.

TABLE XXVIII.—SINGLE WOMEN 16 YEARS OF AGE AND OVER AT WORK: CONDITION OF THE WOMAN AND THE FAM

WEST VIRGINIA—Concluded.

Family number.	The father.		The single woman.							Membership of family.	
										Occupation or condition of—	
	Race and nativity.	Years in U. S.	Age.	Occupation or industry.	Days worked past year.	Earnings past year.	Years since beginning work.	Can read and write.	Mos. school attendance.	Father.	Mother.
108	American...	......	20	Glazer..........	204	$302	$\frac{9}{12}$	Yes.	72	Inspector, car	Home.
			22	Wiper..........	234	216	$\frac{9}{12}$	Yes.	48		
109	German, N.	......	20	Decorator......	24	14	$\frac{1}{12}$	Yes.	63	Laborer.....	Home.
			22	Mold cleaner..	96	64	$1\frac{2}{12}$	Yes.	72		
110	American...	......	20	Washer, enameled ware.	276	165	2	No..	12	Laborer.....	Home.
			25	Roaster, enameled ware.	300	180	8	No..	24		
111	American...	......	21	Transferer......	136	68	$\frac{7}{12}$	Yes.	45	Teamster....	Home.
112	American...	......	21	Domestic......	365	208	7	Yes.	42	Grinder.....	Home.
113	American...	......	21	Wiper..........	310	300	3	Yes.	54	Miner.......	Home.
114	American...	......	21	Wiper..........	18	13	$\frac{1}{12}$	Yes.	55	Blower......	Home.
115	French, N..	......	21	Cut-off..........	216	420	5	Yes.	63	Roller.......	Home.
116	German, N.	......	21	Decorator......	250	312	2	Yes.	80	Miner.......	Home.
117	English, N.	......	21	Packer..........	275	247	$2\frac{3}{12}$	Yes.	60	Watchman..	Home.
118	German, F..	28	21	Packer, lamps..	216	216	5	Yes.	63	Carpenter...	Home.
			22	Packer, lamps..	228	198	6	Yes.	63		
			23	Packer, lamps..	216	216	8	Yes.	63		
119	American...	......	21	Lacquerer......	250	312	$5\frac{6}{12}$	Yes.	70	Dead.......	Home.
			32	Lacquerer......	275	343	13	Yes.	70		
120	American...	......	22	Grinder.........	75	150	5	Yes.	(a)	Furnaceman	Home.
121	American...	......	22	Ironer, laundry.	307	416	5	Yes.	81	Dead.......	Work.
122	English, N.	......	22	Wrapper.......	216	180	7	No..	18	Dead.......	Work.
123	German, F..	(a)	22	Decorator......	192	192	$\frac{11}{12}$	Yes.	72	Dead.......	Home.
124	American...	......	23	Decorator......	234	234	5	Yes.	72	Dead.......	Work.
125	American...	......	23	Mold cleaner...	232	158	4	Yes.	40	Section foreman, R. R.	Home.
126	English, N.	......	23	Chipper.........	240	168	3	Yes.	108	Laborer.....	Home.
127	American...	......	24	Wrapper.......	298	215	3	Yes.	35	Dead.......	Home.
128	German, N.	......	24	Selector.........	168	168	6	Yes.	99	Dead.......	Work.
129	Irish, N....	......	24	Transferer......	117	88	4	Yes.	72	Blower......	Home.
130	English, N.	......	24	Decorator......	250	375	6	Yes.	65	Incapac.....	Home.
			28	Decorator......	250	375	9	Yes.	65		
131	American...	......	25	Selector.........	186	124	4	Yes.	32	Guard, penitentiary.	Home.
132	French, N..	......	25	Decorator......	230	383	9	Yes.	72	Presser......	Home.
133	German, F.	54	25	Clerk, dry goods	300	300	7	Yes.	72	Dead.......	Home.
			31	Press feeder, newspaper.	264	264	10	Yes.	45		
134	American...	......	28	Decorator......	282	587	14	Yes.	63	Laborer.....	Home.
135	American...	......	30	Decorator......	275	343	11	Yes.	60	Dead.......	Home.
			34	Decorator......	275	343	15	Yes.	60		
			38	Seamstress.....	300	416	19	Yes.	68		
136	American...	......	31	Wiper..........	250	250	17	Yes.	40	Miner.......	Home.
137	German, F.	54	32	Selector.........	198	198	14	Yes.	90	Incapac.....	Dead..
			35	Selector.........	198	198	17	Yes.	90		
138	English, F..	(a)	34	Teacher.........	200	375	14	Yes.	65	Dead.......	Dead..
			38	Stamper, metal.	75	93	21	Yes.	25		
139	American...	......	36	Laundress......	300	100	20	Yes.	48	Dead.......	Work.
140	American...	......	36	Lacquerer......	225	281	19	Yes.	70	Dead.......	Home.
141	American...	......	36	Selector.........	192	192	6	Yes.	90	Dead.......	Home.
142	American...	......	37	Decorator......	246	369	13	Yes.	108	Dead.......	Home.
143	American...	......	37	Clerk, gen. store	310	546	9	Yes.	100	Dead.......	Home.

[a] Not reported.

AGE, OCCUPATION, AND EDUCATION OF THE WOMAN, AND ECONOMIC ILY, IN DETAIL, FOR EACH STATE—Continued.

WEST VIRGINIA—Concluded.

Membership of family.						Income of family past year.						Total earnings and income past year.	Am't retained by children 16 and over.	Rent past year.	Per capita weekly income of family.	Family number.
Children of ages—				Total.	Total wage earners.	Earnings of—					Other.					
Under 10.	10 to 13.	14 and 15.	16 and over.			Father.	Mother.	Children—								
								Under 14.	14 and 15.	16 and over.						
1	2	....	4	9	4	$588	......	......	......	$716	......	$1,304	$617	O.H.	$2.79	108
....	1	1	4	8	5	336	......	......	......	437	......	773	......	O.H.	1.86	109
....	2	1	4	9	7	365	......	$39	$91	780	......	1,275	194	$102	2.72	110
1	....	....	2	5	3	100	......	......	......	413	$42	555	201	O.H.	2.13	111
2	1	1	2	8	5	547	......	134	259	496	12	1,448	104	150	3.48	112
....	....	....	2	4	2	411	......	......	......	300	......	711	150	120	3.42	113
2	....	1	2	7	4	900	......	......	135	363	140	1,538	......	O.H.	4.23	114
....	1	1	2	6	4	1,440	......	......	150	620	......	2,210	290	180	7.08	115
....	1	....	1	4	2	512	......	......	......	312	81	905	......	O.H.	4.35	116
1	1	....	1	5	3	765	......	31	......	247	18	1,061	......	168	4.08	117
3	....	1	5	11	6	518	......	......	219	856	9	1,602	184	O.H.	2.80	118
....	....	1	4	6	4	......	......	......	343	955	90	1,388	125	O.H.	4.45	119
3	2	1	2	10	4	308	......	......	271	421	5	1,005	......	60	1.93	120
....	1	....	2	4	2	......	$365	......	......	416	......	781	......	O.H.	3.75	121
....	....	....	2	3	3	......	195	......	......	324	......	519	......	84	3.33	122
....	....	....	2	3	2	......	......	......	......	444	......	444	......	144	2.85	123
....	2	....	2	5	5	......	104	208	......	466	120	898	......	96	3.45	124
....	....	....	3	5	3	696	......	......	......	518	......	1,214	264	144	4.67	125
....	....	....	3	5	4	277	......	......	......	984	......	1,261	......	144	4.85	126
....	....	....	2	3	2	......	......	......	......	415	......	415	......	72	2.66	127
....	....	....	2	3	3	......	78	......	......	355	......	433	89	96	2.78	128
....	....	....	1	3	2	840	......	......	......	88	......	928	88	120	5.95	129
....	....	....	3	5	3	......	......	......	......	1,162	......	1,162	612	108	4.47	130
3	1	....	1	7	2	735	......	......	......	124	40	899	106	132	2.47	131
1	....	....	1	[b] 5	2	1,548	......	......	......	383	......	1,931	......	180	7.43	132
....	....	....	5	6	4	......	......	......	......	958	116	1,074	......	O.H.	3.44	133
....	....	....	1	3	2	435	......	......	......	587	44	1,066	446	96	6.83	134
....	....	....	4	5	4	......	......	......	......	1,852	......	1,852	776	168	7.12	135
2	1	1	2	8	3	495	......	......	......	570	8	1,073	120	72	2.58	136
....	....	....	3	4	2	......	......	......	......	396	180	576	......	O.H.	2.77	137
....	....	....	3	3	2	......	......	......	......	468	8	476	......	O.H.	3.05	138
....	....	....	3	4	4	......	100	......	......	975	19	1,094	657	48	5.26	139
....	....	....	2	3	1	......	......	......	......	281	96	377	......	120	2.42	140
....	....	....	5	6	3	......	......	......	......	1,248	......	1,248	568	O.H.	4.00	141
....	....	....	2	3	1	......	......	......	......	369	156	525	......	O.H.	3.37	142
1	....	1	5	8	5	......	......	......	71	2,024	......	2,095	1,378	O.H.	5.04	143

[b] Including 1 other member.

TABLE XXVIII.—SINGLE WOMEN 16 YEARS OF AGE AND OVER AT WORK: CONDITION OF THE WOMAN AND THE FAM

MARYLAND.

Family number.	The father.		The single woman.							Membership of family.	
										Occupation or condition of—	
	Race and nativity.	Years in U. S.	Age.	Occupation or industry.	Days worked past year.	Earnings past year.	Years since beginning work.	Can read and write.	Mos. school attendance.	Father.	Mother.
1	American...	......	16	Packer.........	196	$184	$5\frac{2}{12}$	Yes.	48	Dead........	Home.
2	German, N.	......	16	Labeler, bakery	42	25	1	Yes.	40	Blower......	Home.
3	German, N.	......	16	Ironer, laundry	257	114	$1\frac{6}{12}$	Yes.	65	Laborer.....	Home.
4	English, N..	......	16	Tie-on..........	260	207	2	Yes.	80	Flagman....	Home.
5	German, F.	26	16	Starcher, laundry.	95	33	1	Yes.	60	Sawyer......	Work.
6	German, F.	24	16	Sewer, bag factory.	240	120	3	Yes.	60	Laborer.....	Home.
7	Irish, F.....	40	16	Wrapper, jewelry.	278	207	1	Yes.	80	Laborer.....	Home.
8	American...	......	17	Packer, tobacco	102	66	3	Yes.	33	Laborer.....	Work.
9	German, N.	......	17	Packer..........	186	108	2	Yes.	48	Engineer....	Home.
10	German, N.	......	17	Hat maker, straw.	215	143	3	Yes.	68	Laborer.....	Home.
11	American...	......	18	Packer..........	298	175	$1\frac{9}{12}$	Yes.	80	Cooper......	Home.
12	American...	......	18	Packer..........	178	206	4	Yes.	70	Car cleaner..	Home.
13	American...	......	18	Tucker, shirt waist.	276	276	3	Yes.	60	Dead........	Home.
14	American...	......	18 20	Packer......... Labeler, medicine.	260 240	172 140	3 4	Yes. Yes.	80 80	Laborer.....	Home.
15	German, F.	25	18 22	Cuff maker, shirts. Cuff maker, shirts.	180 180	150 150	3 7	Yes. Yes.	70 78	Laborer.....	Home.
16	Amer., col..	......	19	Domestic.......	52	26	3	No..	....	Machine tender.	Work.
17	German, F.	20	19 22	Dipper, enameled ware. Dipper, enameled ware.	268 268	220 255	4 7	Yes. Yes.	65 70	Enameler...	Home.
18	German, N.	......	20	Buttonhole maker, clothing.	307	193	8	Yes.	35	Paperhanger	Home.
19	German, F.	62	21	Examiner, shirt factory.	276	276	8	Yes.	42	Shoemaker..	Home.
20	German, F.	26	21	Feller, overalls.	250	289	9	Yes.	30	Laborer.....	Home.
21	German, F.	57	22 26	Packer, tobacco Packer, tobacco	231 231	231 231	11 13	Yes. Yes.	65 72	Painter.....	Home.
22	German, N.	......	24	Domestic.......	365	208	9	Yes.	75	Dead........	Home.

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1	American...	......	16	Leer tender....	244	$160	2	Yes.	63	Laborer.....	Home.
2	American...	......	16 17	Winder, silk... Winder, silk...	231 231	144 144	2 2	Yes. Yes.	24	Dead........	Home.
3	Amer., col..	......	17	Laundress......	51	62	3	Yes.	54	Away.......	Work.
4	Amer., col..	......	17	Mangler, laundry.	307	180	2	Yes.	48	Salesman....	Work.
5	Amer., col..	......	17 21 24	Wrapper, cigars Cigar maker.... Laundress......	301 255 102	201 76 51	4 8 7	Yes. Yes. Yes.	27 18 30	Sawyer......	Work.
6	Amer., col..	......	19 21 45	Stemmer, tobacco. Domestic....... Laundress......	307 102 307	162 17 130	$1\frac{6}{12}$ $\frac{4}{12}$ 30	Yes. Yes. No..	(*b*) (*b*)	Dead........	Work.
7	American...	......	21	Seamstress.....	307	260	3	Yes.	45	Laborer.....	Home.
8	Amer., col..	......	21 30	Laundress...... Stemmer, tobacco.	307 307	156 88	6 15	Yes. No..	45	Dead........	Work.

[a] Including 1 other member.

AGE, OCCUPATION, AND EDUCATION OF THE WOMAN, AND ECONOMIC ILY, IN DETAIL, FOR EACH STATE—Continued.

MARYLAND.

Membership of family.						Income of family past year.						Total earnings and income past year.	Am't retained by children 16 and over.	Rent past year.	Per capita weekly income of family.	Family number.
Children of ages—				Total.	Total wage earners.	Earnings of—					Other.					
Under 10.	10 to 13.	14 and 15.	16 and over.			Father.	Mother.	Children—								
								Under 14.	14 and 15.	16 and over.						
1	1	1	2	6	3	......	......	......	$12	$436	......	$448	$44	$96	$1.44	1
4	1	1	1	9	5	$599	......	$73	8	25	......	705	......	144	1.51	2
4	1	....	1	8	3	308	......	115	......	114	$5	542	......	120	1.30	3
2	1	1	1	7	3	420	......	......	180	207	......	807	......	O.H.	2.22	4
1	1	1	1	6	4	485	$104	......	198	33	......	820	......	O.H.	2.63	5
3	2	....	1	8	3	400	......	140	......	120	......	660	......	54	1.59	6
....	....	1	3	6	5	450	......	......	180	992	10	1,632	238	O.H.	5.23	7
6	2	....	2	12	6	340	64	159	......	186	6	755	......	120	1.21	8
....	2	....	2	6	3	600	......	......	......	408	......	1,008	......	96	3.23	9
1	....	1	1	5	3	480	......	......	163	143	9	795	......	108	3.06	10
....	....	....	1	3	2	328	......	......	......	175	......	503	......	132	3.22	11
1	2	....	2	7	3	537	......	......	......	411	......	948	......	96	2.60	12
....	1	1	1	4	2	......	......	......	138	276	10	424	120	O.H.	2.04	13
....	....	....	3	5	3	308	......	......	......	312	......	620	......	96	2.38	14
5	1	1	4	a14	6	294	......	169	200	484	80	1,227	......	O.H.	1.69	15
2	1	1	1	7	4	154	102	......	167	26	38	487	......	108	1.34	16
....	2	1	3	8	5	800	......	......	101	629	......	1,530	163	180	3.68	17
1	....	1	2	6	4	532	......	......	233	326	......	1,091	......	96	3.50	18
....	....	1	2	5	3	282	......	......	139	276	3	700	......	O.H.	2.69	19
2	2	1	4	11	7	436	......	160	......	852	......	1,448	333	O.H.	2.53	20
....	1	....	4	7	5	292	......	186	......	808	12	1,298	370	120	3.57	21
....	1	....	2	4	3	......	......	141	......	708	......	849	188	168	4.08	22

VIRGINIA.

2	....	....	1	5	2	$228	......	......	......	$160	$21	$409	......	$78	$1.57	1
....	1	1	3	6	5	......	......	$125	$125	716	......	966	......	72	3.10	2
....	1	2	1	a6	4	......	$114	......	322	62	43	541	......	96	1.73	3
1	1	2	1	7	4	171	51	......	355	180	30	787	......	48	2.16	4
....	1	1	4	8	7	191	115	......	145	656	......	1,107	$210	120	2.66	5
....	....	1	3	a6	5	......	65	......	158	309	......	532	......	84	1.71	6
1	2	....	1	6	3	346	......	138	......	260	......	744	200	66	2.38	7
4	....	1	4	10	5	......	52	......	187	551	......	790	256	48	1.52	8

[b] Not reported.

TABLE XXVIII.—SINGLE WOMEN 16 YEARS OF AGE AND OVER AT WORK: CONDITION OF THE WOMAN AND THE FAM

TENNESSEE.

Family number.	The father.		The single woman.							Membership of family.	
										Occupation or condition of—	
	Race and nativity.	Years in U. S.	Age.	Occupation or industry.	Days worked past year.	Earnings past year.	Years since beginning work.	Can read and write.	Mos. school attendance.	Father.	Mother.
1	American		16	Lath sorter, lumber.	300	$100	3	Yes.	50	Dead	Home.
2	American		16	Packer, medicine.	200	168	3	Yes.	24	Laborer	Home.
3	American		19	Operator, telephone.	300	240	5	Yes.	50	Deserter	Home.
4	American		20	Lath sorter, lumber.	200	160	5	Yes.	40	Sawyer	Home.
5	American		23	Lath sorter, lumber.	240	200	4	Yes.	72	Carpenter	Home.

GEORGIA.

Family number.	Race and nativity.	Years in U. S.	Age.	Occupation or industry.	Days worked past year.	Earnings past year.	Years since beginning work.	Can read and write.	Mos. school attendance.	Father.	Mother.
1	Amer., col.		18	Domestic	90	$13	$\frac{3}{12}$	Yes.	70	Cleaner, clothes.	Work.

AGE, OCCUPATION, AND EDUCATION OF THE WOMAN, AND ECONOMIC ILY, IN DETAIL, FOR EACH STATE—Concluded.

TENNESSEE.

Membership of family.						Income of family past year.						Total earnings and income past year.	Am't retained by children 16 and over.	Rent past year.	Per capita weekly income of family.	Family number.
Children of ages—				Total.	Total wage earners.	Earnings of—					Other.					
						Father.	Mother.	Children—								
Under 10.	10 to 13.	14 and 15.	16 and over.					Under 14.	14 and 15.	16 and over.						
....	....	1	2	4	3	......	......	......	$216	$316	......	$532	....	$84	$2.56	1
1	1	1	3	8	5	$369	......	......	300	558	......	1,227	$234	120	2.95	2
....	1	....	2	4	3	......	......	$268	......	540	$75	883	190	168	4.25	3
2	1	1	3	9	6	525	......	66	268	760	255	1,874	184	192	4.00	4
....	1	1	2	6	4	600	......	......	240	440	......	1,280	......	O.H.	4.10	5

GEORGIA.

....	....	1	1	4	4	$312	$65	......	$11	$13	$8	$409	......	O.H.	$1.97	1

TABLE XXIX.—MARRIED WOMEN AT WORK AND ECONOMIC CONDITION OF THEIR FAMILIES, IN DETAIL.

In this table is presented full information in detail for all married women at work and living at home in regard to whom individual data were secured in the home. While a considerable number of these women were employed in the glass factories investigated, a majority of them were employees in other industries, but some woman or child of the family was employed in a glass factory. The factory was the starting point of this investigation. There first was secured from the pay roll of the establishment a complete list of the woman and child employees and those male employees 16 years of age and over who worked in occupations where any women or children were also engaged. With this list were secured the occupation, age, sex, race, and place of birth, and for a pay-roll period the hours worked and the actual earnings. The pay-roll period selected was, as a rule, as near as possible to the visit by the agent of the Bureau. Care was taken, however, that it should be for a period when the establishment was working full time and approximately the normal number of employees were at work.

From the list of employees as taken from the pay roll the names of a certain number of typical woman and child employees of various ages were selected and visits made to the homes. In getting this information in the homes, an endeavor was made to secure schedules relating to all the children under 16 employed in the factories investigated, and also for one-third of the women employees. In a few cases, however, establishments were investigated for the woman and child employees of which, on account of lack of time, no schedules were secured. A sufficient number of schedules were secured, however, to fully represent the home conditions of woman and child employees in the glass industry. In visiting the homes it was found that in many cases the wife was employed in some industry other than glass. Information was secured in such cases in the same manner and covering the same points as for the married women employed in the glass industry.

The information secured in the home enabled the agent to verify several of the items obtained in the factory and to secure additional data, a part of which are shown in this table.

The basis of this table is the married woman at work and living at home with her family. The women (with their families) are arranged in order according to the condition of the husband, as dead, divorced, a deserter, incapacitated, idle, and at work. The facts given for each married woman and family relate to the husband, the woman, the membership of the family, and the income of the family during the past year. Beginning with the second column of the table, there is given for the husband the race, and whether native or foreign born.

This is followed in the next column by the number of years in the United States in the case of the foreign-born, or, if the husband is dead, the number of years since he came to the United States. For the woman the information given in order is the age, the occupation, the industry if other than the glass industry, and the reported number of days worked during the past year. The days worked, as given here, and the earnings as given in later columns of the table, were secured in the home by careful questioning of members of the family. With a knowledge of the occupation, the age, the usual earnings of the occupation, and the earnings of the individual during a recent period, the employee was asked to give the agent estimates of the days worked during the past year, and the earnings. Great care was used in questioning to see that due allowance was made for changes in rates of wages during the year, for time lost either by sickness, irregularity of the employees, or a reduction of time or of the force in the establishment. As a result of this careful questioning, reports were secured as accurate, probably, as it is possible to secure in the absence of detailed records. They are, however, necessarily only approximate, sometimes with a considerable error in the case of the individual, but probably very close to the facts on the average. The probability of error in these figures is discussed in detail on page 508.

Under the membership of the family are given the condition of the husband, whether dead, divorced, a deserter, incapacitated, or at work, the number of children of specified ages living in the family, the total membership of the family, and the total wage-earners in the family. The total membership of the family and the total wage-earners include only members of the natural family, boarders and lodgers, if any, not being included.

Under income of the family during the past year are given the earnings of the husband, the wife, the children under 14 years of age, children 14 and 15, the children of 16 years and over, the income from other sources, and the total of earnings and income. In addition, the amount of the earnings retained by the children 16 years of age and over (that is, not turned into the family fund) is also given. The income from other sources includes all income other than earnings. The income from the keeping of boarders and lodgers is an important item. The amount entered as the income from boarders and lodgers is not the gross amount paid in by boarders and lodgers, but one-half of that amount in the case of lodgers and one-fifth in the case of boarders or boarders and lodgers, which is estimated to be a fair average of the profit in such cases. In some cases there was income from property owned. Other sources of income were garden, poultry, etc. In rare cases income was also found from the sale of property or from insurance. In such cases the source and amount of income have always been noted.

Following the amount of earnings retained by children 16 years of age and over during the past year is a column showing the amount expended for rent during the year. In those cases where the family owned its own home, this fact is indicated by the abbreviation "O. H." The table concludes with two columns showing, respectively, the per capita weekly income less the earnings of the wife, and of the wife plus those of the children under 14.

In order that the form of the table may be clearly understood, the following example is given, using the first family in the part of the table relating to New York. In the first line of the table the first woman given was 36 years of age and had been married 20 years. Her husband was an American. The woman's occupation was that

TABLE XXIX.—MARRIED WOMEN AT WORK: AGE AND OCCUPATION OF FAMILY, IN DETAIL,

NEW YORK.

Family number.	The husband.		The married woman.				Membership of family.			
	Race and nativity.	Yrs. in U. S.	Yrs. married.	Age.	Occupation or industry.	Days worked past year.	Occupation or condition of husband.	Children of ages—		
								2 and under.	3 to 5.	6 to 9.
1	American		20	36	Cleaner and dyer	240	Dead			
2	German, N.		30	49	Laundress	120	Dead			1
3	Irish, F.	45	47	65	Seamstress	(a)	Dead			
4	German, F.	36	28	45	Finisher, men's clothing.	300	Incapacitated			
5	German, N.		19	42	Laundress	300	Work			1
6	Italian, F.	15	22	42	Seamstress	150	Work			
7	Pole, F.	18	11	41	Laundress	208	Work			

NEW JERSEY.

Family number.	Race and nativity.	Yrs. in U. S.	Yrs. married.	Age.	Occupation or industry.	Days worked past year.	Occupation or condition of husband.	2 and under.	3 to 5.	6 to 9.
1	American		22	48	Domestic	52	Dead			1
2	American		19	42	Weaver, cotton	294	Dead			2
3	American		18	37	Laundress	40	Dead			2
4	Irish, N.		22	48	Weaver, cotton	264	Dead			
5	English, F.	(a)	26	46	Seamstress	50	Dead			
6	Irish, F.	(a)	21	49	Laundress	200	Dead			
7	American		18	36	Waitress	72	Deserter			
8	American		31	52	Laundress	150	Deserter			1
9	American		34	54	Laundress	150	Incapacitated			
10	American		18	37	Laundress	80	Work		2	2
11	American		25	43	Seamstress	120	Work			
12	American		27	46	Laundress	24	Work			1
13	American		23	42	Janitress	300	Work		1	2
14	American		22	45	Stemmer, canned goods.	25	Work			
15	American		15	41	Laundress	75	Work			
16	American		41	62	Laundress	50	Work			
17	American		23	41	Stemmer, canned goods.	75	Work		1	2
18	Amer., col.		15	29	Laundress	100	Work			
19	German, F.	39	21	38	Seamstress	144	Work		1	

[a] Not reported.

of cleaner in a glass factory, and she reported 240 days worked during the past year. Under the membership of the family, it appears that the husband was dead and that there was one child 16 years old or over, the total membership of the family being 2 and the wage-earners the same. As to the income and earnings of the family during the past year, the table shows that the earnings of the wife amounted to $400, those of the child 16 or over $233, there being no other income. The total income and earnings for the year was $633, $84 of which was paid for rent, the per capita weekly income of the family, without the earnings of the wife, being $2.24. The facts for each of the other married women and their families may be seen from a study of this table, following out the items in like manner.

THE WOMAN, AND ECONOMIC CONDITION OF THE WOMAN AND THE FOR EACH STATE.

NEW YORK.

Membership of family.					Income of family past year.						Total earnings and income past year.	Am't retained by children 16 and over.	Rent past year.	Per capita weekly income of family less earnings of—		Family number.
Children of ages—			Total.	Total wage earners.	Earnings of—					Other.				Wife.	Wife, and children under 14.	
10 to 13.	14 and 15.	16 and over.			Husband.	Wife.	Children—									
							Under 14.	14 and 15.	16 and over.							
...	....	1	2	2	......	$400	......	......	$233	......	$633	......	$84	$2.24	......	1
...	1	1	4	3	......	40	......	$36	210	$123	409	......	84	1.77	......	2
...	....	1	2	2	......	15	......	......	202	......	217	......	96	1.94	......	3
...	1	.....	3	2	......	600	......	220	......	192	1,012	......	O. H.	2.64	......	4
1	1	1	6	3	$390	400	......	......	245	60	1,095	......	O. H.	2.23	......	5
2	1	1	6	5	250	125	$52	16	75	......	518	......	132	1.26	$1.09	6
2	1	.....	5	3	308	128	......	141	......	......	577	......	144	1.73	......	7

NEW JERSEY.

10 to 13.	14 and 15.	16 and over.	Total.	Total wage earners.	Husband.	Wife.	Under 14.	14 and 15.	16 and over.	Other.	Total earnings and income past year.	Am't retained by children 16 and over.	Rent past year.	Wife.	Wife, and children under 14.	Family number.
1	1	1	5	4	......	$52	$144	$122	$252	......	$570	......	$36	$1.99	$1.44	1
...	2	1	6	4	......	490	......	399	119	......	1,008	......	84	1.66	......	2
1	1	1	6	4	......	40	32	150	200	$3	425	......	104	1.23	1.13	3
1	....	1	3	3	......	352	180	......	182	......	714	......	48	2.32	1.17	4
...	1	2	4	3	......	50	......	144	375	......	569	......	72	2.50	......	5
2	1	.....	4	3	......	100	109	204	......	......	413	......	65	1.50	.98	6
2	1	.....	4	2	......	72	156	......	......	......	228	......	84	.75	......	7
1	....	2	5	3	......	150	63	......	300	......	513	......	84	1.40	1.15	8
...	1	2	5	4	......	90	......	212	769	......	1,071	......	108	3.77	......	9
1	1	1	9	4	$485	40	......	162	100	10	797	......	90	1.62	......	10
...	....	1	3	3	2,000	80	......	......	240	......	2,320	$136	132	14.36	......	11
...	1	.....	4	3	240	30	......	43	......	......	313	......	108	1.36	......	12
1	1	1	8	4	375	300	......	200	263	......	1,138	......	O. H.	2.01	......	13
1	1	1	5	4	600	20	......	112	337	70	1,139	......	108	4.30	......	14
...	1	.....	3	3	1,350	56	......	148	......	......	1,554	......	78	9.60	......	15
...	....	1	3	3	56	50	......	......	220	180	506	90	120	2.92	......	16
1	1	1	8	4	80	63	......	193	243	2	581	......	72	1.25	......	17
1	1	.....	4	3	412	50	......	131	......	35	628	......	48	2.78	......	18
1	1	.....	5	3	864	120	......	108	......	......	1,092	......	108	3.74	......	19

TABLE XXIX.—MARRIED WOMEN AT WORK: AGE AND OCCUPATION OF FAMILY, IN DETAIL, FOR

PENNSYLVANIA.

Family number.	The husband.		The married woman.				Membership of family.			
								Children of ages—		
	Race and nativity.	Yrs. in U. S.	Yrs. married.	Age.	Occupation or industry.	Days worked past year.	Occupation or condition of husband.	2 and under.	3 to 5.	6 to 9.
1	American	......	17	41	Laundress	300	Dead	....	....	1
2	American	......	19	38	Inspector	288	Dead	....	....	....
3	American	......	16	36	Charwoman	156	Dead	....	....	1
4	American	......	15	34	Weaver, woolen	198	Dead	....	....	....
5	American	......	23	41	Domestic	350	Dead	....	....	....
6	American	......	30	58	Seamstress	225	Dead	....	....	....
7	American	......	25	41	Attendant, cloak-room.	214	Dead	....	....	....
8	American	......	18	38	Baker, bread	300	Dead	1	1	1
9	American	......	18	38	Laundress	156	Dead	....	....	1
10	American	......	15	37	Charwoman	210	Dead	....	....	2
11	American	......	20	39	Domestic	26	Dead	....	....	1
12	English, N	......	27	48	Charwoman	104	Dead	1	....	....
13	German, N	......	17	39	Seamstress	198	Dead	....	....	1
14	German, F	(d)	40	53	Laundress	104	Dead	....	....	....
15	German, F	(d)	27	49	Laundress	52	Dead	....	....	....
16	Irish, N	......	28	47	Storekeeper, candy	307	Dead	....	....	....
17	Irish, N	......	26	40	Janitress	240	Dead	....	....	....
18	Bohem., F	21	22	42	Laundress	100	Dead	....	....	....
19	English, F	30	18	40	Charwoman	104	Dead	....	....	....
20	German, F	18	23	48	Charwoman	300	Dead	....	....	....
21	German, F	22	18	42	Storekeeper, meat	306	Dead	....	....	2
22	German, F	20	19	47	Laundress	100	Dead	....	....	....
23	German, F	10	23	40	Laundress	250	Dead	....	....	....
24	German, F	20	18	43	Laundress	52	Dead	....	....	1
25	German, F	52	42	64	Laundress	(d)	Dead	....	....	....
26	Irish, F	18	16	39	Charwoman	200	Dead	....	....	....
27	Irish, F	20	(d)	38	Charwoman	307	Dead	....	....	1
28	Irish, F	20	20	38	Twister, silk	200	Dead	....	....	....
29	Irish, F	(d)	26	48	Wrapper	244	Dead	....	....	....
30	Irish, F	25	15	40	Charwoman	(d)	Dead	1	1	1
31	Irish, F	20	19	37	Spooler, woolen	200	Dead	....	....	1
32	Irish, F	20	15	35	Laundress	300	Dead	....	....	2
33	Lith., F	21	20	39	Laundress	70	Dead	....	1	1
34	Pole, F	16	17	37	Laundress	150	Dead	....	1	1
35	Pole, F	12	20	36	Grinder	275	Dead	....	....	....
36	Russian, F	15	16	37	Laundress	156	Dead	....	....	....
37	Scand., F	20	19	42	Laundress	312	Dead	....	....	2
38	English, F	39	37	53	Laundress	156	Dead	1	....	....
39	Slav., F	18	24	55	Laundress	300	Dead	....	....	....
40	Slovak, F	15	16	33	Laundress	52	Dead	....	....	2
41	French, F	18	16	48	Seamstress	300	Divorced	....	....	....
42	American	......	20	36	Laundress	300	Deserter	....	....	....
43	American	......	41	61	Laundress	(d)	Deserter	....	....	....
44	Irish, N	......	24	43	Laundress	156	Deserter	....	1	....
45	German, F	15	23	44	Laundress	(d)	Deserter	....	1	2
46	Irish, F	20	21	39	Domestic	280	Deserter	....	1	1
47	Pole, F	20	25	45	Laundress	108	Deserter	....	....	....
48	American	......	14	33	Domestic	100	Separated	....	....	....
49	American	......	20	55	Domestic	150	Separated	....	....	1
50	American	......	23	41	Seamstress	300	Separated	1	1	1
51	German, F	40	40	64	Laundress	250	Incapacitated	....	....	....
52	German, F	20	19	46	Domestic	307	Incapacitated	....	....	....
53	German, F	43	35	50	Charwoman	208	Incapacitated	....	....	....
54	German, F	60	29	54	Laundress	100	Incapacitated	....	....	....
55	American	......	17	39	Laundress	307	Idle	....	....	1
56	English, F	30	26	46	Laundress	200	Idle	....	....	....
57	Slovak, F	20	17	37	Domestic	104	Idle	....	....	1
58	American	......	18	35	Laundress	104	Work	....	1	....
59	American	......	26	40	Charwoman	60	Work	....	....	....
60	American	......	20	40	Laundress	310	Work	....	1	....
61	American	......	(d)	47	Domestic	20	Work	....	....	2

[a] Including 1 other member.

[b] Estimated value of free rent.

THE WOMAN, AND ECONOMIC CONDITION OF THE WOMAN AND THE EACH STATE—Continued.

PENNSYLVANIA.

Membership of family.					Income of family past year.						Total earnings and income past year.	Am't retained by children 16 and over.	Rent past year.	Per capita weekly income of family less earnings of—		Family number.
Children of ages—			Total.	Total wage earners.	Earnings of—					Other.				Wife.	Wife, and children under 14.	
10 to 13.	14 and 15.	16 and over.			Husband.	Wife.	Children— Under 14.	Children— 14 and 15.	Children— 16 and over.							
2	1	1	6	3	......	$225	$122	$291	......	......	$638	......	$108	$1.32	$0.93	1
...	1	2	a5	3	......	416	......	......	$558	......	974	$240	144	2.15	......	2
2	1	.....	5	2	......	156	......	186	......	$20	362	......	60	.79	......	3
1	1	.....	3	2	......	330	......	115	......	25	470	......	132	.90	......	4
...	1	2	4	3	......	350	......	72	175	104	701	......	84	1.69	......	5
...	1	.....	2	2	......	208	......	190	......	54	452	......	b 54	2.35	......	6
...	1	3	5	2	......	178	......	......	480	320	978	280	240	3.08	......	7
2	1	1	8	3	......	156	......	292	195	170	813	......	b 150	1.58	......	8
...	2	1	5	4	......	156	......	274	178	......	608	......	72	1.74	......	9
1	1	.....	5	2	......	210	......	136	......	10	356	......	60	.56	......	10
...	1	2	5	3	......	40	......	210	275	......	525	......	O. H.	1.87	......	11
...	....	4	6	4	......	104	......	......	1,080	......	1,184	388	108	3.46	......	12
2	1	1	6	4	......	198	91	172	200	c 350	1,011	......	132	2.61	2.31	13
...	....	1	2	2	......	104	......	......	295	15	414	......	96	2.98	......	14
...	....	1	2	2	......	26	......	......	175	35	236	......	36	2.02	......	15
1	1	5	8	5	......	200	......	......	1,360	......	1,560	736	168	3.27	......	16
...	1	2	a5	4	......	280	......	150	1,430	48	1,908	1,054	132	6.26	......	17
1	1	1	4	4	......	200	63	78	168	......	509	......	84	1.49	1.18	18
2	2	1	6	4	......	104	......	285	149	31	569	......	132	1.49	......	19
1	1	3	6	5	......	125	......	50	1,343	......	1,518	468	120	4.46	......	20
...	1	1	5	3	......	510	......	38	115	35	698	......	O. H.	.72	......	21
...	1	1	3	2	......	90	......	......	250	57	397	94	96	1.97	......	22
1	1	1	4	3	......	156	......	220	90	86	552	......	120	1.90	......	23
2	2	1	7	4	......	52	......	527	171	c 500	1,250	......	84	3.29	......	24
...	....	3	4	3	......	32	......	......	1,015	......	1,047	137	144	4.88	......	25
...	1	.....	2	2	......	200	......	148	......	30	378	......	96	1.71	......	26
2	1	.....	5	2	......	260	......	150	......	......	410	......	108	.58	......	27
1	1	1	4	3	......	165	......	82	240	......	487	......	30	1.55	......	28
...	1	.....	2	2	......	163	......	121	......	45	329	......	b 45	1.60	......	29
1	1	.....	6	2	......	144	......	250	......	......	394	......	96	.80	......	30
2	1	2	7	4	......	231	......	130	400	......	761	......	60	1.46	......	31
2	1	.....	6	2	......	208	......	42	......	......	250	......	66	.13	......	32
1	1	2	7	4	......	35	......	90	270	......	395	......	O. H.	.99	......	33
...	....	1	4	2	......	188	......	......	323	......	511	......	72	1.55	......	34
...	1	.....	2	2	......	228	......	56	......	......	284	......	36	.54	......	35
...	1	.....	2	2	......	117	......	297	......	......	414	......	33	2.86	......	36
...	2	1	6	3	......	208	......	264	117	......	589	58	O. H.	1.22	......	37
...	2	2	6	4	......	117	......	495	158	......	770	......	180	2.09	......	38
1	....	.....	2	2	......	78	102	......	......	......	180	......	O. H.	.98	......	39
2	1	.....	6	3	......	78	388	388	......	......	854	......	72	2.49	1.24	40
1	....	1	3	3	......	156	50	......	195	106	507	......	O. H.	2.25	1.93	41
2	1	1	5	3	......	88	......	209	260	87	644	......	54	2.14	......	42
...	....	2	3	3	......	46	......	......	568	......	614	......	102	3.64	......	43
...	1	1	a5	3	......	156	......	235	257	......	648	......	156	1.89	......	44
...	1	1	6	3	......	120	......	306	180	c 30	636	......	192	1.65	......	45
1	1	1	6	3	......	300	......	200	75	......	575	......	72	.88	......	46
...	1	.....	2	2	......	108	......	89	......	17	214	......	84	1.02	......	47
...	1	.....	2	2	......	100	......	200	......	......	300	......	72	1.92	......	48
...	1	1	4	2	......	50	......	216	......	3	269	......	54	1.05	......	49
1	1	3	9	4	......	300	......	324	495	......	1,119	195	108	1.75	......	50
...	....	1	3	2	......	80	......	......	216	......	296	......	60	1.38	......	51
...	....	1	3	2	......	486	......	......	126	......	612	......	72	.81	......	52
...	1	.....	3	2	......	208	......	140	......	100	448	......	60	1.54	......	53
...	....	2	4	3	......	52	......	......	545	......	597	......	O. H.	2.62	......	54
...	1	1	5	3	......	300	......	132	195	52	679	......	162	1.46	......	55
1	....	3	6	4	......	175	......	......	617	......	792	......	O. H.	1.98	......	56
...	....	1	4	2	......	104	......	......	189	......	293	......	90	.91	......	57
1	1	.....	5	3	$391	104	......	250	......	......	745	......	120	2.47	......	58
...	2	1	5	5	180	60	......	330	300	......	870	144	84	3.12	......	59
2	1	2	8	5	365	104	......	209	99	10	787	......	O. H.	1.64	......	60
2	1	1	8	4	90	20	......	188	312	......	610	......	96	1.42	......	61

c Amount of life insurance received.

d Not reported.

TABLE XXIX.—MARRIED WOMEN AT WORK: AGE AND OCCUPATION OF FAMILY, IN DETAIL, FOR

PENNSYLVANIA—Concluded.

Family number.	The husband.		The married woman.				Membership of family.			
	Race and nativity.	Yrs. in U. S.	Yrs. married.	Age.	Occupation or industry.	Days worked past year.	Occupation or condition of husband.	Children of ages—		
								2 and under.	3 to 5.	6 to 9.
62	American	......	9	32	Domestic	117	Work	....	....	1
63	American	......	31	51	Seamstress	25	Work	....	....	....
64	American	......	23	36	Charwoman	156	Work	1	1	1
65	American	......	17	39	Laundress	208	Work	1	1	1
66	American	......	27	45	Nurse	40	Work	....	....	1
67	German, N	......	30	49	Laundress	100	Work	....	....	1
68	German, N	......	18	52	Storekeeper, notions.	304	Work	....	....	....
69	German, N	......	18	40	Seamstress	150	Work	1	1	1
70	Irish, N	......	17	42	Laundress	104	Work	1	1	2
71	Irish, N	......	15	40	Laundress	156	Work	....	....	1
72	Irish, N	......	16	37	Seamstress	198	Work	1	1	1
73	Irish, N	......	15	36	Laundress	156	Work	1	1	1
74	Irish, N	......	15	36	Charwoman	104	Work	....	1	1
75	French, F	18	16	35	Laundress	312	Work	....	....	1
76	French, F	4	15	38	Laundress	50	Work	....	....	....
77	French, F	3	16	34	Seamstress	300	Work	....	....	2
78	German, F	18	15	33	Janitress	52	Work	....	....	2
79	German, F	21	40	54	Laundress	104	Work	....	1	....
80	German, F	18	16	33	Laundress	200	Work	1	1	1
81	Italian, F	18	18	37	Seamstress	310	Work	....	1	3
82	Italian, F	24	16	40	Laundress	156	Work	1	1	2
83	Italian, F	20	15	33	Seamstress	307	Work	1	2	2
84	Italian, F	10	15	34	Storekeeper	307	Work	2	1	3
85	Italian, F	24	18	39	Storekeeper, grocery	315	Work	....	1	3
86	Italian, F	22	16	38	Storekeeper, general.	315	Work	1	1	....
87	Lith., F	19	28	44	Laundress	(b)	Work	....	....	....
88	Pole, F	17	25	43	Janitress	90	Work	....	....	1
89	Pole, F	19	25	46	Laundress	52	Work	....	1	1
90	German, F	20	18	43	Laundress	(b)	Dead	....	....	....

OHIO.

Family number.	Race and nativity.	Yrs. in U. S.	Yrs. married.	Age.	Occupation or industry.	Days worked past year.	Occupation or condition of husband.	2 and under.	3 to 5.	6 to 9.
1	American	......	19	38	Etcher, needle	240	Dead	....	....	....
2	American	......	20	39	Laundress	300	Dead	....	....	....
3	American	......	40	55	Domestic	52	Dead	....	....	....
4	American	......	26	47	Domestic	204	Dead	....	....	1
5	American	......	19	37	Laundress	310	Dead	....	....	....
6	American	......	(b)	53	Laundress	200	Dead	....	1	1
7	English, N	......	17	36	Laundress	50	Dead	....	....	....
8	English, F	(b)	17	41	Laundress	156	Dead	....	....	1
9	German, N	......	20	38	Laundress	260	Dead	....	....	1
10	English, N	......	17	39	Laundress	280	Dead	....	....	....
11	German, F	20	19	42	Weaver	240	Dead	....	....	....
12	Irish, N	......	17	41	Storekeeper	150	Dead	1	....	1
13	Irish, N	......	19	46	Grinder	240	Dead	....	....	....
14	American	......	18	32	Laundress	156	Divorced	....	2	2
15	American	......	16	41	Seamstress	206	Divorced	....	....	....
16	American	......	22	37	Laundress	310	Separated	....	....	....
17	German, F	25	(b)	36	Domestic	250	Divorced	....	1	1
18	Irish, N	......	23	58	Storekeeper	(b)	Divorced	....	....	....
19	American	......	35,	51	Domestic	200	Deserter	....	....	....
20	American	......	29	46	Seamstress	230	Deserter	....	....	....
21	Irish, F	30	11	37	Grinder	182	Deserter	....	....	2
22	English, F	30	16	36	Laundress	156	Deserter	....	1	....
23	German, F	30	30	50	Laundress	104	Incapacitated	....	....	....
24	Irish, N	......	16	34	Laundress	100	Incapacitated	1	....	1
25	Amer., col	......	(b)	35	Laundress	155	Work	....	....	....
26	American	......	28	47	Laundress	104	Work	....	....	....
27	American	......	16	38	Seamstress	72	Work	1	....	1
28	American	......	16	(b)	Laundress	104	Work	1	1	....

[a] Including 1 other member.

[b] Not reported.

THE WOMAN, AND ECONOMIC CONDITION OF THE WOMAN AND THE EACH STATE—Continued.

PENNSYLVANIA—Concluded.

Membership of family.					Income of family past year.						Total earnings and income past year.	Am't retained by children 16 and over.	Rent past year.	Per capita weekly income of family less earnings of—		Family number.
Children of ages—			Total.	Total wage earners.	Earnings of—					Other.				Wife.	Wife, and children under 14.	
10 to 13.	14 and 15.	16 and over.			Husband.	Wife.	Children—									
							Under 14.	14 and 15.	16 and over.							
...	...	2	5	4	$466	$100	...	...	$38	...	$604	$18	$156	$1.94	...	62
1	1	...	4	3	470	25	...	$72	...	$10	577	...	72	2.65	...	63
2	...	2	9	5	360	195	$168	...	236	...	959	...	216	1.63	$1.27	64
1	1	1	8	4	253	64	...	72	190	...	579	...	60	1.24	...	65
2	1	3	9	5	506	20	...	...	558	...	1,084	...	180	2.27	...	66
1	2	1	7	3	437	100	...	170	...	...	707	...	84	1.67	...	67
...	...	1	3	3	840	130	...	...	240	65	1,275	...	264	7.34	...	68
1	2	1	9	4	675	78	...	207	68	...	1,028	...	144	2.03	...	69
2	1	...	9	4	260	104	60	191	...	78	693	...	132	1.26	1.13	70
2	...	...	5	3	305	125	68	...	...	10	508	...	84	1.47	1.21	71
1	1	...	7	3	415	198	...	180	...	...	793	...	96	1.63	...	72
2	1	...	8	3	306	125	...	150	...	8	589	...	48	1.12	...	73
2	1	...	7	3	300	240	...	104	...	...	644	...	132	1.11	...	74
1	1	...	5	3	78	195	...	130	...	...	403	...	144	.80	...	75
2	1	...	5	3	432	40	...	91	...	...	563	...	O. H.	2.01	...	76
2	1	1	8	4	384	50	...	67	100	...	601	...	108	1.32	...	77
2	1	...	7	3	288	26	...	60	...	...	374	...	O. H.	.96	...	78
...	1	...	4	3	385	52	...	138	...	...	575	...	108	2.51	...	79
1	1	...	7	3	210	120	57	...	...	15	402	...	60	.77	.62	80
2	1	...	9	3	312	155	...	195	...	...	662	...	48	1.08	...	81
1	2	...	9	3	240	156	...	58	...	...	454	...	96	.64	...	82
1	1	...	9	3	300	154	...	250	...	...	704	...	60	1.18	...	83
1	1	...	10	3	260	150	...	145	...	...	555	...	96	.78	...	84
1	...	2	[a]10	4	234	100	...	...	263	...	597	...	O. H.	.96	...	85
1	1	...	6	3	400	300	...	200	...	...	900	...	O. H.	1.92	...	86
1	1	2	6	4	431	16	...	149	105	1	702	...	144	2.20	...	87
...	1	2	6	5	30	45	...	60	506	...	641	50	72	1.91	...	88
2	1	1	8	4	630	39	...	50	273	...	992	3	72	2.29	...	89
3	2	1	7	4	...	78	...	572	175	[c] 320	1,145	...	84	2.93	...	90

OHIO.

...	...	1	2	2	...	$165	...	...	$336	...	$501	...	$60	$3.23	...	1
...	...	2	3	3	...	188	...	...	490	...	678	...	84	3.14	...	2
1	1	2	5	4	...	26	...	$273	858	$144	1,301	$642	72	4.90	...	3
...	1	...	3	2	...	221	...	204	...	...	425	...	72	1.31	...	4
1	1	2	5	4	...	179	...	109	395	...	683	...	132	1.94	...	5
...	1	1	5	3	...	200	...	187	188	...	575	...	84	1.44	...	6
1	1	...	3	2	...	50	...	65	...	47	162	...	84	.72	...	7
2	2	...	6	2	...	156	...	145	...	...	301	...	O. H.	.46	...	8
2	1	2	7	4	...	182	...	93	330	2	607	...	O. H.	1.17	...	9
2	1	1	5	3	...	235	...	39	250	...	524	...	168	1.11	...	10
3	1	2	7	4	...	120	...	187	585	5	897	240	O. H.	2.13	...	11
...	1	1	5	3	...	150	...	112	150	100	512	...	132	1.39	...	12
...	...	1	2	2	...	488	...	...	175	...	663	...	60	1.68	...	13
2	1	...	8	2	...	156	...	252	...	...	408	...	60	.61	...	14
...	1	...	2	2	...	257	...	118	...	...	375	...	120	1.13	...	15
...	...	1	2	2	...	148	...	...	190	...	338	152	60	1.83	...	16
...	1	2	[d] 8	4	...	125	...	66	512	6	709	137	144	1.40	...	17
...	1	1	3	3	...	40	...	165	192	...	397	...	O. H.	2.29	...	18
...	...	2	3	3	...	147	...	...	850	8	1,005	500	48	5.50	...	19
...	1	3	5	4	...	96	...	93	673	...	862	...	120	2.95	...	20
...	...	...	[a] 4	1	...	150	...	...	...	40	190	...	O. H.	.19	...	21
1	2	...	5	2	...	156	...	231	...	24	411	...	60	.98	...	22
...	1	1	4	2	...	78	...	93	...	10	181	...	72	.50	...	23
1	1	...	6	2	...	100	...	93	...	...	193	...	84	.30	...	24
...	2	...	4	4	$444	155	...	189	...	10	798	...	O. H.	3.09	...	25
2	1	1	6	4	72	104	...	239	240	144	799	160	60	2.23	...	26
1	1	...	6	3	972	36	...	48	...	...	1,056	...	132	3.27	...	27
2	1	...	7	3	260	78	...	225	...	...	563	...	108	1.33	...	28

[c] Amount of life insurance received.

[d] Including 2 other members.

TABLE XXIX.—MARRIED WOMEN AT WORK: AGE AND OCCUPATION OF FAMILY, IN DETAIL, FOR

OHIO—Concluded.

Family number.	The husband.		The married woman.				Membership of family.			
	Race and nativity.	Yrs. in U. S.	Yrs. married.	Age.	Occupation or industry.	Days worked past year.	Occupation or condition of husband.	Children of ages— 2 and under.	Children of ages— 3 to 5.	Children of ages— 6 to 9.
29	American		20	38	Seamstress	156	Work			2
30	American		20	33	Domestic	90	Work	1	1	1
31	American		(a)	35	Domestic	60	Work			
32	American		18	35	Laundress	50	Work		1	1
33	German, N		18	37	Laundress	125	Work		2	1
34	German, F	41	24	42	Laundress	300	Work			1
35	English, N		16	33	Domestic	60	Work			1
36	American		26	45	Laundress	155	Divorced			
37	American		18	49	Laundress	300	Away			

INDIANA.

Family number.	Race and nativity.	Yrs. in U. S.	Yrs. married.	Age.	Occupation or industry.	Days worked past year.	Occupation or condition of husband.	2 and under.	3 to 5.	6 to 9.
1	American		16	42	Seamstress	216	Dead			
2	American		27	46	Laundress	208	Dead			
3	American		18	40	Charwoman	200	Dead			1
4	American		20	40	Domestic	60	Dead			
5	Amer., col		25	45	Domestic	360	Dead			
6	Irish, F	(a)	16	31	Caterer	48	Dead			
7	American		15	38	Laundress	104	Deserter			1
8	American		16	35	Laundress	50	Work		1	1
9	American		1	19	Capper	18	Work			
10	American		19	36	Seamstress	300	Work			2
11	American		20	42	Laundress	52	Work			
12	American		(a)	30	Boarding-house keeper.	(a)	Work			
13	Amer., col		(a)	36	Laundress	52	Work	1		2
14	Amer., col		(a)	30	Laundress	208	Work	2	2	2
15	Amer., col		16	40	Laundress	8	Work		1	2

ILLINOIS.

Family number.	Race and nativity.	Yrs. in U. S.	Yrs. married.	Age.	Occupation or industry.	Days worked past year.	Occupation or condition of husband.	2 and under.	3 to 5.	6 to 9.
1	American		16	32	Leer tender	96	Dead			
2	American		20	42	Laundress	300	Dead		2	1
3	American		31	48	Laundress	306	Dead			
4	American		27	45	Coverer, demijohn	240	Dead			
5	Amer., col		23	48	Carry-in	240	Dead			
6	Amer., col		8	26	Carry-in	240	Dead		1	
7	Amer., col		20	38	Laundress	300	Dead			
8	Amer., col		20	38	Domestic	300	Dead			
9	German, N		17	35	Laundress	64	Dead		2	1
10	German, N		18	41	Laundress	156	Dead			
11	German, F	23	23	42	Seamstress	75	Dead			
12	German, F	(a)	20	40	Nurse	216	Dead			
13	Irish, F	(a)	33	47	Carpet sewer	104	Dead			
14	American		21	37	Seamstress	130	Deserter			
15	Amer., col		29	49	Laundress	12	Deserter			
16	German, F	(a)	20	43	Laundress	290	Deserter		1	
17	Amer., col		21	36	Carry-in	340	Separated			
18	American		26	44	Domestic	300	Deserter			
19	Amer., col		18	35	Boarding-house keeper.	365	Deserter			
20	Amer., col		15	40	Domestic	365	Work			1
21	Amer., col		18	39	Laundress	150	Work			
22	Amer., col		6	20	Mold cleaner	234	Work		1	
23	Amer., col		18	32	Domestic	100	Work		1	2
24	Amer., col		19	38	Laundress	50	Work	1	2	

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a Not reported.

b Including $800 life insurance received.

THE WOMAN, AND ECONOMIC CONDITION OF THE WOMAN AND THE EACH STATE—Continued.

OHIO—Concluded.

Membership of family.					Income of family past year.						Total earnings and income past year.	Am't retained by children 16 and over.	Rent past year.	Per capita weekly income of family less earnings of—		Family number.
Children of ages—			Total.	Total wage earners.	Earnings of—					Other.				Wife.	Wife, and children under 14.	
10 to 13.	14 and 15.	16 and over.			Husband.	Wife.	Children— Under 14.	14 and 15.	16 and over.							
1	1	1	7	4	$605	$143	......	$306	$363	......	$1,417	$363	$168	$3.50	......	29
1	1	1	8	3	360	94	......	285	......	......	739	......	O. H.	1.55	......	30
...	1	.....	3	3	337	75	......	46	......	$5	463	......	O. H.	2.49	......	31
2	....	1	7	4	225	37	$13	......	225	......	500	......	O. H.	1.27	$1.24	32
...	1	1	7	3	656	125	......	75	......	5	861	......	O. H.	2.02	......	33
1	1	1	6	3	165	200	......	......	300	......	665	......	O. H.	1.49	......	34
1	1	.....	5	3	200	45	......	112	......	......	357	......	O. H.	1.20	......	35
...	1	.....	2	2	....	194	......	158	......	20	372	......	156	1.71	......	36
1	1	.....	3	2	....	300	......	298	......	......	598	......	84	1.91	......	37

INDIANA.

10 to 13.	14 and 15.	16 and over.	Total.	Total wage earners.	Husband.	Wife.	Under 14.	14 and 15.	16 and over.	Other.	Total earnings and income past year.	Am't retained by children 16 and over.	Rent past year.	Wife.	Wife, and children under 14.	Family number.
1	1	.....	3	2	....	$72	......	$233	......	b $870	$1,175	......	$84	$7.07	......	1
1	1	.....	3	2	....	104	......	180	......	5	289	......	60	1.19	......	2
1	1	1	5	3	....	200	......	192	$307	....	699	......	60	1.92	......	3
...	1	1	3	3	....	60	......	127	506	....	693	......	60	4.06	......	4
...	1	.....	2	2	....	260	......	83	......	....	343	......	c 12	.80	......	5
...	2	.....	3	3	....	144	......	437	......	27	608	......	84	2.97	......	6
1	....	.....	3	1	....	104	......	......	......	25	129	......	O. H.	.16	......	7
2	1	.....	7	3	$434	50	......	72	......	....	556	......	120	1.39	......	8
...	....	.....	2	2	594	14	......	......	......	22	630	......	60	5.92	......	9
2	1	.....	7	3	450	125	......	14	......	....	589	......	72	1.27	......	10
...	1	.....	3	3	450	52	......	220	......	....	722	......	120	4.29	......	11
...	1	1	4	4	300	62	......	270	245	12	889	$95	132	3.98	......	12
1	1	.....	7	3	461	52	......	88	......	70	671	......	96	1.70	......	13
2	2	2	14	6	720	104	......	251	404	369	1,848	134	O. H.	2.40	......	14
2	1	.....	8	3	528	12	......	101	......	....	641	......	72	1.51	......	15

ILLINOIS.

10 to 13.	14 and 15.	16 and over.	Total.	Total wage earners.	Husband.	Wife.	Under 14.	14 and 15.	16 and over.	Other.	Total earnings and income past year.	Am't retained by children 16 and over.	Rent past year.	Wife.	Wife, and children under 14.	Family number.
1	1	.....	3	2	....	$72	......	$93	......	$10	$175	......	$96	$0.66	......	1
1	1	.....	6	2	....	125	......	185	......	....	310	......	O. H.	.59	......	2
...	1	3	5	4	....	128	......	208	$406	5	747	$106	108	2.38	......	3
...	....	1	2	2	....	240	......	......	280	....	520	......	O. H.	2.69	......	4
...	....	.....	d 2	1	....	220	......	......	......	....	220	......	72	......	......	5
1	....	.....	3	1	....	220	......	......	......	25	245	......	66	.16	......	6
...	....	1	2	2	....	300	......	......	121	....	421	......	84	1.16	......	7
...	....	2	3	3	....	250	......	......	598	....	848	280	78	3.83	......	8
2	1	.....	d 8	2	....	64	......	118	......	221	403	......	O. H.	.82	......	9
...	1	2	4	3	....	78	......	252	288	1	619	......	96	2.60	......	10
...	1	2	4	4	....	38	......	156	865	102	1,161	571	O. H.	5.40	......	11
...	....	1	2	2	....	300	......	......	180	200	680	......	96	3.65	......	12
...	1	5	7	6	....	138	......	172	2,132	57	2,499	780	168	6.49	......	13
...	1	1	3	3	....	182	......	180	260	97	719	......	114	3.44	......	14
...	....	3	4	4	....	10	......	......	711	....	721	......	120	3.42	......	15
1	....	2	5	3	....	290	......	......	384	40	714	72	96	1.63	......	16
1	1	.....	3	1	....	546	......	......	......	6	552	......	120	.04	......	17
...	1	.....	2	2	....	300	......	163	......	32	495	......	O. H.	1.88	......	18
...	....	1	2	2	....	260	......	......	222	....	482	......	101	2.13	......	19
2	1	1	7	4	$843	456	......	78	260	28	1,665	......	O. H.	3.32	......	20
2	....	1	5	3	350	150	......	......	220	....	720	......	108	2.19	......	21
...	....	.....	d 4	2	600	275	......	......	......	....	875	......	72	2.88	......	22
2	....	1	8	3	400	100	......	......	220	....	720	......	60	1.49	......	23
...	1	1	7	4	312	63	......	9	220	....	604	......	48	1.49	......	24

c Estimated value of free rent.

d Including 1 other member.

TABLE XXIX.—MARRIED WOMEN AT WORK: AGE AND OCCUPATION OF FAMILY, IN DETAIL, FOR

ILLINOIS—Concluded.

Family number.	The husband.		The married woman.				Membership of family.			
	Race and nativity.	Yrs. in U. S.	Yrs. married.	Age.	Occupation or industry.	Days worked past year.	Occupation or condition of husband.	Children of ages—2 and under.	Children of ages—3 to 5.	Children of ages—6 to 9.
25	Amer., col.	......	16	34	Carry-in	240	Work	....	1	2
26	Amer., col.	......	6	30	Snap-up	239	Work	....	....	....
27	Amer., col.	......	6	27	Snap-up	209	Work	....	....	....
28	Amer., col.	......	7	29	Carry-in	245	Work	....	....	....
29	Amer., col.	......	8	23	Snap-up	246	Work	....	....	....
30	Amer., col.	......	4	20	Stick-up	234	Work	....	....	....
31	Amer., col.	......	3	23	Mold cleaner	168	Work	....	....	....
32	Amer., col.	......	10	24	Snap-up	235	Work	....	....	2
33	Amer., col.	......	24	38	Snap-up	210	Work	2	....	....
34	Amer., col.	......	12	27	Carry-in	243	Work	1	....	1
35	Amer., col.	......	3	22	Stick-up	236	Work	....	....	....
36	Amer., col.	......	13	39	Stick-up	302	Work	....	....	1
37	German, F.	50	24	46	Nurse	155	Work	....	....	1

WISCONSIN.

Family number.	Race and nativity.	Yrs. in U. S.	Yrs. married.	Age.	Occupation or industry.	Days worked past year.	Occupation or condition of husband.	2 and under.	3 to 5.	6 to 9.
1	German, F.	15	24	45	Charman	300	Dead	....	....	....
2	Pole, F.	27	22	50	Bartender	300	Work	....	....	1

MISSOURI.

Family number.	Race and nativity.	Yrs. in U. S.	Yrs. married.	Age.	Occupation or industry.	Days worked past year.	Occupation or condition of husband.	2 and under.	3 to 5.	6 to 9.
1	Amer., col.	......	28	60	Laundress	208	Dead	....	....	1
2	Amer., col.	......	22	40	Carry-in	154	Dead	....	....	....
3	Amer., col.	......	45	65	Laundress	50	Dead	....	....	....
4	Amer., col.	......	20	40	Laundress	300	Dead	....	....	....
5	German, F.	22	15	36	Laundress	156	Dead	....	1	1
6	German, F.	(b)	18	39	Laundress	104	Dead	....	....	1
7	Amer., col.	......	23	37	Laundress	104	Separated	....	....	....
8	Amer., col.	......	20	52	Laundress	260	Separated	....	....	1
9	American	......	11	30	Packer	154	Work	....	....	....
10	Amer., col.	......	25	49	Laundress	52	Work	....	....	2
11	Amer., col.	......	18	39	Laundress	200	Work	1	....	....
12	Amer., col.	......	21	41	Carry-in	154	Work	....	....	....
13	Amer., col.	......	2	22	Laundress	104	Work	1	....	....
14	Amer., col.	......	8	44	Carry-in	154	Work	....	....	....
15	Amer., col.	......	15	35	Domestic	300	Work	....	....	....
16	German, N.	......	32	51	Laundress	52	Work	....	....	....

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[a] Including 1 other number.

THE WOMAN, AND ECONOMIC CONDITION OF THE WOMAN AND THE EACH STATE—Continued.

ILLINOIS—Concluded.

Membership of family.					Income of family past year.						Total earnings and income past year.	Am't retained by children 16 and over.	Rent past year.	Per capita weekly income of family less earnings of—		Family number.
Children of ages—			Total.	Total wage earners.	Earnings of—					Other.				Wife.	Wife and children under 14.	
10 to 13.	14 and 15.	16 and over.			Husband.	Wife.	Children—									
							Under 14.	14 and 15.	16 and over.							
1	1	.....	7	2	$234	$220	......	......	......	....	$454	......	$72	$0.64	......	25
1	....	.....	3	2	504	239	......	......	......	....	743	....	96	3.23	......	26
...	....	.....	2	2	365	209	......	......	......	....	574	......	130	3.51	......	27
...	....	.....	2	2	462	245	......	......	......	$10	717	......	72	4.54	......	28
...	....	.....	2	2	130	184	......	......	......	....	314	......	96	1.25	......	29
...	....	.....	2	2	303	215	......	......	......	....	518	......	72	2.91	......	30
...	....	.....	2	2	280	126	......	......	......	....	406	......	84	2.69	......	31
...	....	.....	a 5	2	300	235	......	......	......	15	550	......	101	1.21	......	32
1	....	2	7	4	344	210	......	......	$722	53	1,329	......	O. H.	3 07	......	33
...	....	.....	4	2	84	243	......	......	......	....	327	......	60	.40	......	34
...	....	.....	2	2	404	215	......	......	......	....	619	......	96	3.88	......	35
...	....	.....	3	2	465	277	......	......	......	22	764	......	120	3.12	......	36
...	1	1	5	4	295	173	......	$112	260	19	859	......	72	2.64	......	37

WISCONSIN.

2	1	2	a 7	4	....	$225	......	$280	$675	$60	$1,240	......	O. H.	$2.79	......	1
2	1	3	9	5	$480	600	......	144	350	....	1,574	......	$120	2.08	......	2

MISSOURI.

...	....	3	5	4	....	$208	......	......	$704	....	$912	$312	$120	$2.71	......	1
...	....	.....	1	1	....	154	......	......	......	$45	199	......	84	.87	......	2
...	1	.....	2	2	....	50	......	$340	......	....	390	......	90	3.27	......	3
2	1	.....	4	3	....	450	$138	210	......	....	798	......	1.67	1.67	$1.01	4
2	1	.....	6	2	....	52	......	247	......	64	363	......	180	1.00	......	5
2	1	1	6	3	....	130	......	216	345	....	691	......	108	1.80	......	6
...	1	1	3	2	....	52	......	286	......	....	338	......	48	1.83	......	7
...	2	2	6	4	....	299	......	265	442	....	1,006	21	60	2.27	......	8
1	....	.....	3	2	$404	193	......	......	......	14	611	......	120	2.68	......	9
...	1	1	6	4	450	26	......	286	286	....	1,048	......	60	3.28	......	10
2	1	.....	6	3	525	50	......	171	......	....	746	......	120	2.23	......	11
...	....	.....	2	2	410	154	......	......	......	....	564	......	120	3.94	......	12
...	....	2	5	4	359	104	......	......	318	....	781	......	120	2.60	......	13
...	....	.....	2	2	424	154	......	......	......	....	578	......	168	4.08	......	14
...	2	.....	4	3	329	150	......	262	......	....	741	......	120	2.84	......	15
...	1	.....	3	3	260	52	......	257	......	6	575	......	78	3.35	......	16

b Not reported.

TABLE XXIX.—MARRIED WOMEN AT WORK: AGE AND OCCUPATION OF FAMILY, IN DETAIL, FOR

WEST VIRGINIA.

Family number.	The husband.		The married woman.				Membership of family.			
								Children of ages—		
	Race and nativity.	Yrs. in U.S.	Yrs. married.	Age.	Occupation or industry.	Days worked past year.	Occupation or condition of husband.	2 and under.	3 to 5.	6 to 9.
1	American	......	43	55	Laundress	104	Dead	....	....	....
2	American	......	18	34	Laundress	150	Dead	1	1	1
3	American	......	15	44	Laundress	78	Dead	....	....	1
4	American	......	17	48	Charwoman	276	Dead	....	....	....
5	American	......	20	40	Laundress	312	Dead	....	....	1
6	American	......	14	36	Seamstress	150	Dead	....	....	....
7	American	......	17	32	Domestic	150	Dead	....	....	....
8	American	......	27	48	Grinder	292	Dead	....	....	....
9	American	......	20	39	Laundress	312	Dead	....	....	....
10	American	......	20	40	Nurse	(b)	Dead	....	....	....
11	American	......	23	43	Domestic	144	Dead	....	1	1
12	American	......	37	51	Seamstress	300	Dead	....	....	....
13	English, N	......	32	56	Laundress	156	Dead	....	....	....
14	German, N	......	18	33	Laundress	156	Dead	....	....	....
15	German, N	......	25	46	Seamstress	(b)	Dead	....	....	....
16	American	......	16	34	Laundress	204	Divorced	....	....	....
17	American	......	13	37	Laundress	155	Divorced	....	....	1
18	English, F	25	23	55	Domestic	250	Divorced	....	....	....
19	American	......	13	32	Transferer	280	Divorced	....	1	....
20	American	......	19	37	Dresser, pottery	144	Deserter	....	1	....
21	American	......	18	40	Seamstress	200	Deserter	....	....	....
22	American	......	15	35	Wiper	210	Deserter	....	....	2
23	American	......	16	38	Laundress	310	Deserter	....	....	....
24	American	......	27	55	Laundress	50	Deserter	....	....	....
25	English, N	......	35	51	Seamstress	75	Deserter	....	....	1
26	Irish, F	40	29	50	Storekeeper, meat	300	Deserter	....	....	....
27	American	......	17	50	Carton maker	349	Deserter	....	....	....
28	American	......	18	33	Washer	300	Incapac	....	....	1
29	American	......	13	33	Stamper, metal	307	Incapac	1	1	1
30	Italian, F	15	21	39	Storekeeper	365	Incapac	1	1	2
31	American	......	34	50	Domestic	40	Work	....	....	....
32	American	......	19	35	Domestic	208	Work	....	....	....
33	American	......	19	35	Domestic	50	Work	1	2	1
34	American	......	20	38	Domestic	20	Work	1	1	1
35	American	......	16	31	Selector	15	Work	....	....	....
36	American	......	18	35	Domestic	320	Work	....	....	....
37	French, F	30	21	39	Storekeeper, general	156	Work	....	....	....
38	German, F	24	16	34	Domestic	24	Work	1	....	1
39	German, F	26	28	49	Domestic	52	Work	....	....	....
40	Magyar, F	10	25	43	Laundress	120	Work	....	....	....
41	English, N	......	13	49	Laundress	155	Work	....	....	....
42	American	......	21	42	Domestic	104	Dead	....	....	....
43	American	......	20	40	Boarding-house keeper.	365	Dead	....	....	2
44	German, N	......	17	37	Selector, glass	192	Dead	....	....	....
45	Irish, N	......	26	50	Laundress	210	Dead	....	....	....

MARYLAND.

Family number.	Race and nativity.	Yrs. in U.S.	Yrs. married.	Age.	Occupation or industry.	Days worked past year.	Occupation or condition of husband.	2 and under.	3 to 5.	6 to 9.
1	Amer., col	......	42	60	Laundress	104	Incapac	....	....	....
2	Amer., col	......	20	45	Laundress	205	Work	1	....	1
3	American	......	6	50	Laundress	102	Work	....	....	....
4	American	......	16	36	Seamstress	(b)	Work	....	2	2
5	American	......	19	35	Canned goods	128	Work	2	1	3
6	German, N	......	17	38	Preparer, canned goods.	115	Work	1	....	1
7	German, N	......	31	48	Laundress	135	Work	....	1	1
8	German, F	26	10	33	Seamstress	307	Work	1	....	....

[a] Including 1 other member.

[b] Not reported.

THE WOMAN, AND ECONOMIC CONDITION OF THE WOMAN AND THE EACH STATE—Continued.

WEST VIRGINIA.

Membership of family.					Income of family past year.						Total earnings and income past year.	Am't retained by children 16 and over.	Rent past year.	Per capita weekly income of family less earnings of—		Family number.
Children of ages—			Total.	Total wage earners.	Earnings of—					Other.				Wife.	Wife, and children under 14.	
10 to 13.	14 and 15.	16 and over.			Husband.	Wife.	Children—									
							Under 14.	14 and 15.	16 and over.							
2	....	2	5	5	....	$104	$208	......	$466	$120	$898	......	$96	$3.05	$2.25	1
1	1	.....	6	3	....	75	38	$198	......	....	311	......	90	.76	.63	2
2	1	.....	5	3	....	98	174	205	......	....	477	......	120	1.46	.79	3
2	1	.....	4	4	....	115	212	281	......	....	608	......	78	2.37	1.35	4
2	1	.....	a 6	2	....	624	......	156	......	8	788	......	174	.53	......	5
1	1	.....	3	2	....	75	......	94	......	10	179	......	O. H.	.67	......	6
2	....	1	4	2	....	187	......	......	290	....	477	......	O. H.	1.39	......	7
1	....	2	4	2	....	365	......	......	416	....	781	......	O. H.	2.00	......	8
...	1	1	3	3	....	312	......	13	54	60	439	......	60	.81	......	9
1	1	1	4	3	....	40	......	79	159	21	299	......	84	1.25	......	10
...	1	.....	4	2	....	144	......	22	......	....	166	......	96	.11	......	11
...	....	3	4	4	....	100	......	......	975	19	1,094	$657	48	4.78	......	12
...	....	2	3	3	....	195	......	......	324	....	519	......	84	2.08	......	13
1	....	1	3	3	....	72	231	......	111	156	570	3	60	3.19	1.71	14
...	....	2	3	3	....	78	......	......	355	....	433	89	96	2.28	......	15
...	1	.....	2	2	....	153	......	110	......	....	263	......	72	1.06	......	16
1	1	.....	4	3	....	155	73	180	......	46	454	......	120	1.44	1.09	17
...	....	1	c 4	3	....	200	......	......	800	....	1,000	500	O. H.	3.85	......	18
1	1	.....	4	2	....	210	......	224	......	....	434	......	84	1.08	......	19
1	1	1	a 6	3	....	138	......	84	238	....	460	......	O. H.	1.03	......	20
...	1	.....	2	2	....	300	......	250	......	....	550	......	O. H.	2.40	......	21
1	....	.....	4	1	....	210	......	......	......	107	317	......	d 72	.51	......	22
1	2	.....	4	2	....	310	......	179	......	....	489	......	120	.86	......	23
...	1	.....	2	2	....	50	......	205	......	....	255	......	72	1.97	......	24
...	1	2	5	4	....	75	......	262	550	....	887	......	84	3.12	......	25
...	....	4	5	4	....	750	......	......	1,499	....	2,249	837	144	5.77	......	26
...	....	1	2	2	....	138	......	......	287	....	425	......	84	2.76	......	27
2	....	.....	5	1	....	225	......	......	......	....	225	......	42	......	......	28
1	....	.....	6	1	....	252	......	......	......	36	288	......	O. H.	.12	......	29
1	....	1	8	3	....	182	261	......	187	3	633	......	O. H.	1.08	.46	30
1	....	2	5	5	$240	50	94	......	480	....	864	246	120	3.13	2.77	31
1	1	1	5	5	288	200	17	154	54	....	773	......	144	1.97	1.91	32
1	1	2	10	6	225	50	216	67	483	2	1,043	......	120	1.91	1.49	33
1	....	.....	6	3	384	15	90	......	......	....	489	......	60	1.52	1.23	34
1	1	.....	4	3	450	14	......	47	......	2	513	......	O. H.	2.40	......	35
1	1	2	6	5	158	240	......	84	206	2	690	......	72	1.44	......	36
1	1	2	6	4	903	260	......	......	689	....	1,852	......	156	5.10	......	37
3	1	.....	c10	6	617	36	320	284	......	28	1,295	......	120	2.42	1.81	38
...	1	3	6	5	468	26	......	......	911	27	1,432	587	120	4.51	......	39
...	1	.....	3	3	162	194	......	36	......	2	394	......	90	1.28	......	40
1	....	.....	3	3	51	78	250	......	......	....	379	......	80	1.93	.33	41
1	1	1	4	3	....	156	......	165	219	3	543	......	60	1.86	......	42
...	....	2	5	3	....	365	......	......	450	....	815	......	O. H.	1.73	......	43
1	1	.....	3	2	....	168	......	211	......	72	451	......	O. H.	1.81	......	44
...	1	2	4	4	....	140	......	221	619	....	980	307	96	4.04	......	45

MARYLAND.

...	1	5	8	6	....	$52	......	$98	$538	....	$688	$288	$96	$1.53	......	1
1	1	1	7	4	$154	102	......	167	26	$38	487	......	108	1.06	......	2
2	....	.....	4	3	616	78	$135	......	......	20	849	......	O. H.	3.71	$3.06	3
2	....	.....	8	3	307	52	85	......	......	6	450	......	120	.96	.75	4
2	....	2	12	6	340	64	159	......	186	6	755	......	120	1.11	.85	5
2	1	1	8	4	306	115	......	148	234	....	803	......	132	1.65	......	6
1	....	1	6	4	375	26	50	......	350	4	805	94	114	2.50	2.34	7
1	1	1	6	4	485	104	......	198	33	....	820	......	O. H.	2.29	......	8

[c] Including 2 other members.

[d] Estimated value of free rent.

TABLE XXIX.—MARRIED WOMEN AT WORK: AGE AND OCCUPATION OF FAMILY, IN DETAIL, FOR

VIRGINIA.

Family number.	The husband.		The married woman.				Membership of family.			
	Race and nativity.	Yrs. in U. S.	Yrs. married.	Age.	Occupation or industry	Days worked past year.	Occupation or condition of husband.	Children of ages— 2 and under.	3 to 5.	6 to 9.
1	Amer., col.		(a)	42	Domestic	52	Dead		1	
2	Amer., col.		(a)	58	Laundress	78	Dead			
3	Amer., col.		31	55	Laundress	52	Dead	2	1	1
4	Amer., col.		18	40	Laundress	153	Away			
5	Amer., col.		2	19	Mach. opr., tobacco.	255	Work			1
6	Amer., col.		6	32	Laundress	256	Work	1		
7	Amer., col.		28	48	Laundress	154	Work			
8	Amer., col.		25	44	Laundress	192	Deserter			1
9	American		37	59	Seamstress	50	Work	1	1	

SOUTH CAROLINA.

Family number.	Race and nativity.	Yrs. in U. S.	Yrs. married.	Age.	Occupation or industry	Days worked past year.	Occupation or condition of husband.	2 and under.	3 to 5.	6 to 9.
1	Amer., col.		20	38	Laundress	200	Dead			
2	Amer., col.		21	37	Laundress	257	Work	1		2

GEORGIA.

Family number.	Race and nativity.	Yrs. in U. S.	Yrs. married.	Age.	Occupation or industry	Days worked past year.	Occupation or condition of husband.	2 and under.	3 to 5.	6 to 9.
1	Amer., col.		16	41	Laundress	307	Dead			
2	Amer., col.		19	48	Laundress	307	Work			
3	Amer., col.		23	47	Laundress	307	Work			1
4	Amer., col.		10	27	Laundress	307	Work			

[a] Not reported.

TABLE XXX.—MARRIED WOMEN AT WORK LIVING IN HOMES OTHER THAN THEIR OWN AND ECONOMIC CONDITION OF THEIR FAMILIES, IN DETAIL.

In this table is presented full information in detail for all married women at work living in homes other than their own in regard to whom individual data were secured in the home. Most of these women were employed in the glass factories investigated, the information being secured in the same manner as explained in connection with Table XXIX. This group of women is distinguished from those shown in Table XXIX merely from the fact that they were living in a family not their own; that is, in which the woman did not stand in the position of female head of the family.

An examination of the first line of the table shows that it relates to a woman 30 years of age whose relationship to the family with which she was living was that of daughter. Her occupation was

THE WOMAN, AND ECONOMIC CONDITION OF THE WOMAN AND THE EACH STATE—Concluded.

VIRGINIA.

Membership of family.					Income of family past year.						Total earnings and income past year.	Am't retained by children 16 and over.	Rent past year.	Per capita weekly income of family less earnings of—		Family number.
Children of ages—			Total.	Total wage earners.	Earnings of—					Other.						
10 to 13.	14 and 15.	16 and over.			Husband.	Wife.	Children—							Wife.	Wife and children under14.	
							Under 14.	14 and 15.	16 and over.							
...	1	1	*b* 5	3	....	$130	......	$48	$52	....	$230	......	$24	$0.38	......	1
...	1	3	*b* 6	5	....	65	......	158	309	....	532	......	84	1.50	......	2
...	1	4	10	5	....	52	......	187	551	....	790	$256	48	1.42	......	3
1	2	1	*b* 6	4	....	114	......	322	62	$43	541	......	96	1.37	......	4
1	....	....	4	3	$322	127	$43	......	......	....	492	......	72	1.75	$1.55	5
1	1	1	6	4	193	180	......	66	179	....	618	......	60	1.40	......	6
1	1	4	8	7	191	115	......	145	656	....	1,107	210	120	2.38	......	7
2	1	....	5	3	....	96	134	143	......	....	373	......	72	1.07	.55	8
...	1	3	8	5	462	25	......	125	980	....	1,592	605	126	3.77	......	9

SOUTH CAROLINA.

10 to 13.	14 and 15.	16 and over.	Total.	Total wage earners.	Husband.	Wife.	Under 14.	14 and 15.	16 and over.	Other.	Total earnings and income past year.	Am't retained by children 16 and over.	Rent past year.	Wife.	Wife and children under14.	Family number.
1	1	1	4	3	....	$102	......	$161	$193	$18	$474	$155	$60	$1.79	......	1
1	1	1	8	4	$205	85	$169	137	......	15	611	......	60	1.26	$0.86	2

GEORGIA.

10 to 13.	14 and 15.	16 and over.	Total.	Total wage earners.	Husband.	Wife.	Under 14.	14 and 15.	16 and over.	Other.	Total earnings and income past year.	Am't retained by children 16 and over.	Rent past year.	Wife.	Wife and children under14.	Family number.
1	....	1	3	3	....	$52	$149	......	$182	$24	$407	......	$30	$2.28	$1.32	1
2	1	1	6	4	$200	39	40	$10	......	15	304	......	O. H.	.85	.72	2
2	1	2	8	6	768	100	71	......	258	18	1,215	$154	24	2.68	2.51	3
...	1	1	4	4	312	65	......	11	13	8	409	......	O. H.	1.65	......	4

b Including 1 other member.

given as inspector, and employment during the year of 240 days was reported. The table shows that the husband was dead, and that the woman had one child between 6 and 9 years of age. Under the earnings of the woman's family, her own earnings, $180, are the only ones reported. With regard to the family in which the woman was living, the head of the family was reported as an American; the total membership of the family was 7, and the total wage-earners, 5. The total earnings and income of the family were reported as $2,008, none of which was retained by individual members of the family. With regard to the manner in which days worked during the past year and the earnings were obtained, the reader is referred to Table XXIX, where full information is given. The facts for each of the married women at work living in homes other than their own may be seen from a study of this table, following out the items in like manner.

TABLE XXX.—MARRIED WOMEN AT WORK LIVING IN HOMES OTHER ECONOMIC CONDITION OF THE WOMAN AND THE

NEW JERSEY.

The woman.				The woman's family.							
					Children of ages—						
Relation to family in which she lives.	Age.	Occupation or industry.	Days worked past year.	Condition of husband.	2 years and under.	3 to 5 years.	6 to 9 years.	10 to 13 years.	14 and 15 years.	16 years and over.	Total members of family.
Daughter	30	Inspector	240	Dead			1				2
Daughter	35	Washer	228	Divorced							1

PENNSYLVANIA.

Daughter	25	Janitress, railroad station.	350	Dead		1	1				3
Daughter	25	Janitress, apartment.	16	Dead	1	2					4
Mother	43	Laundress	156	Dead			1	2	1		5
Mother	51	Washer	250	Dead							1
Daughter	22	Cut-off	80	Separated	1						2
Daughter	29	Selector	170	Separated			1	2			4
Daughter	18	Chipper	100	Deserter	1						2
Daughter	26	Sorter	225	Deserter			1				2
Daughter	33	Janitress, pool room.	313	Deserter			2				3
Daughter	20	Grinder	250	Away							1

OHIO.

Daughter	32	Washer	144	Dead				1			2
Daughter	32	Selector	192	Dead			1	1			3
Daughter	35	Grinder	304	Separated					1		2
Daughter	20	Washer	234	Deserter							1
Daughter	25	Washer	234	Deserter	1	1					3
Daughter	24	Selector	72	Deserter		2	1				4
Daughter	24	Washer	300	Deserter		1					2
Daughter	27	Glazer	300	Deserter			1				2

INDIANA.

Daughter	23	Laundress	200	Work							2

ILLINOIS.

Daughter	25	Coverer, demijohns.	264	Dead							1

MISSOURI.

Mother	60	Laundress	104	Dead						1	2

THAN THEIR OWN: AGE AND OCCUPATION OF THE WOMAN, AND WOMAN'S FAMILY, IN DETAIL, FOR EACH STATE.

NEW JERSEY.

The woman's family.						The family in which the woman lives.				
Earnings of—										
Husband.	Wife.	Children—			Total.	Race of head.	Total members.	Total wage-earners.	Total earnings and income.	Amount retained by individual members.
		Under 14 years.	14 and 15 years.	16 years and over.						
	$180				$180	American	7	5	$2,008	
	171				171	Scand., F	4	3	771	$183

PENNSYLVANIA.

	$424				$424	Irish, F	9	5	$1,547	$268
	24				24	Irish, N	7	3	893	
	156		$147		303	Croatian, F	8	3	828	
	467				467	American	4	2	1,389	267
	66				66	English, F	9	4	1,199	
	140				140	American	9	4	857	
	66				66	American	8	2	916	
	150				150	English, F	6	3	870	52
	416				416	German, F	7	4	1,895	751
	167				167	Pole, F	6	1	267	

OHIO.

	$108				$108	Irish, F	6	4	$1,338	$354
	155				155	Irish, F	7	3	1,412	
	510				510	English, F	4	2	1,082	153
	163				163	American	10	4	883	131
	163				163					
	54				54	American	8	4	641	
	203				203	Irish, N	7	3	1,103	
	325				325	American	6	3	870	235

INDIANA.

$300	$150				$450	Amer., col	7	5	$1,161	

ILLINOIS.

	$440				$440	Irish, F	9	5	$1,460	$320

MISSOURI.

	$208			$110	$318	Amer., col	5	4	$781	

TABLE XXX.—MARRIED WOMEN AT WORK LIVING IN HOMES OTHER ECONOMIC CONDITION OF THE WOMAN AND THE WOMAN'S

WEST VIRGINIA.

The woman.				The woman's family.							
					Children of ages—						
Relation to family in which she lives.	Age.	Occupation or industry.	Days worked past year.	Condition of husband.	2 years and under.	3 to 5 years.	6 to 9 years.	10 to 13 years.	14 and 15 years.	16 years and over.	Total members of family.
Daughter	22	Decorator	52	Dead		1					2
Daughter	24	Decorator	300	Dead		1	1				3
Daughter	26	Selector	18	Dead							1
Daughter	27	Decorator	264	Dead		1					2
Daughter	28	Decorator	96	Dead		1	1				3
Sister	40	Chipper	240	Dead							1
Daughter	23	Washer	150	Dead		1					2
Daughter	21	Wiper	270	Separated							1
Daughter	26	Transferer	294	Separated			2				3
Daughter	36	Grinder	48	Deserter							1
Daughter	18	Grinder	307	Work							2

VIRGINIA.

Relation to family in which she lives.	Age.	Occupation or industry.	Days worked past year.	Condition of husband.	2 years and under.	3 to 5 years.	6 to 9 years.	10 to 13 years.	14 and 15 years.	16 years and over.	Total members of family.
Daughter	27	Laundress	52	Dead		1					2

THAN THEIR OWN: AGE AND OCCUPATION OF THE WOMAN, AND FAMILY, IN DETAIL, FOR EACH STATE—Concluded.

WEST VIRGINIA.

The woman's family.						The family in which the woman lives.				
Earnings of—										
Husband.	Wife.	Children—			Total.	Race of head.	Total members.	Total wage-earners.	Total earnings and income.	Amount retained by individual members.
		Under 14 years.	14 and 15 years.	16 years and over.						
....	$48	....	....	....	$48	American.........	6	2	$618	$294
....	450	....	....	....	450	American.........	5	2	900	....
....	11	....	....	....	11	American.........	7	6	1,493	566
....	396	....	....	....	396	American	9	4	834	313
....	96	....	....	....	96					
....	168	....	....	....	168	American.........	3	2	252	....
....	135	....	....	....	135	American.........	4	2	739	200
....	225	....	....	....	225	American.........	4	4	1,094	657
....	220	....	....	....	220	American.........	8	5	2,531	880
....	34	....	....	....	34	German, F........	6	4	1,074	....
$750	364	....	....	....	1,114	American.........	5	2	827	56

VIRGINIA.

....	$52	....	....	....	$52	Amer., col........	5	3	$230	....

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